English for
the Oil industry

1

Vocational English
Course Book

PEARSON
Longman

Evan Frendo with David Bonamy
Series editor David Bonamy

A1-A2

CD-ROM

English for
the Oil industry

1

Vocational English
Course Book

Alejandro RM

Evan Frendo with David Bonamy
Series editor David Bonamy

Contents

		Function	Language	Vocabulary
Unit 1 The oil industry	**Introductions** p.4	Introducing yourself	Verb *be* *I'm Jennifer Burgess. I'm from Scotland. I'm a radio operator.*	Jobs in the oil industry Countries
	Getting oil to the customer p.5	Describing people	Present simple *Matthew works on an oil rig.* Present simple of *be* *Ricardo is a roustabout.*	Stages in getting oil to the customer
	Spelling p.6	Exchanging information	*How do you spell ... ?*	The alphabet
	Jobs p.7	Describing people's jobs	Present simple *We transport the oil.* Present simple of *be* *I'm the supervisor.*	Jobs in the oil industry
	Introducing yourself and others p.8	Introducing yourself and others	Asking questions *Where does he work?* *What does he do?*	Jobs in the oil industry
	Health and safety: Personal protective equipment (PPE) p.9	Describing personal protective equipment	Asking questions *What does a helmet protect?*	Personal protective equipment
	Oil fields p.10	Talking about oil fields around the world	Asking questions *Where is Ghawar?*	Oil-producing countries and states
	Review p.11			
Unit 2 Looking for oil	**On land** p.12	Explaining about looking for oil on land	Asking questions *What's this?* *What does this do?*	Word partnerships: *thumper truck, energy source, ...*
	At sea p.13	Explaining about looking for oil at sea	Describing how to look for oil at sea	Word stress
	Seismic operators p.14	Describing what seismic operators do	Plurals	Word partnerships *handle explosives*
	Numbers p.15	Using numbers (1 to 100)	*one, two, ninety, one hundred*	Numbers
	Where is it? p.16	Saying where things are	Prepositions	Personal protective equipment Everyday objects
	Health and safety: Instructions p.17	Understanding and giving instructions	Imperatives *Turn off the phone*	*bring, be, turn, keep, put, touch*
	Giving personal information p.18	Giving personal information	Asking questions *What's your name? Where do you live?* *How tall are you?*	Numbers
	Review p.19			
Unit 3 Oil fields	**Oil field equipment** p.20	Describing oil field equipment	*What's this?* *What are those?*	Oil field equipment
	Operating equipment p.21	Giving and understanding instructions for operating equipment	Imperatives *turn, open, close*	Oil field equipment
	Control panels p.22	Describing control panels	*There is / There are*	Control panel components
	Telling the time p.23	Telling the time	*Three o'clock* *What time ... ?*	Numbers
	Asking questions about equipment p.24	Asking questions about equipment	*What's this?* *What are these for?*	Oil field equipment Personal protective equipment
	Health and safety: Warning signs p.25	Understanding warning signs	*must* *mustn't / must not*	Warning signs
	Making conversation p.26	Making conversation	Asking questions *Where's ... Are you sure? Cup of tea?*	Forms *No problem, OK, Good idea, Fair enough*
	Review p.27			
Unit 4 Drilling	**Drilling a well** p.28	Explaining about drilling a well	Sequencing	Verbs connected with drilling a well
	The rotary system p.29	Describing the rotary system	Sequencing	Parts of the rotary system
	Lifting gear p.30	Explaining about lifting gear	Present simple *This is a ...* *This goes from ...* *This pulls the ...*	Parts of the lifting system
	Hand tools p.31	Describing hand tools	*to / too*	Hand tools
	Directions p.32	Asking for and giving directions	*supervisors / supervisor's / supervisors'*	Prepositions
	Health and safety: Helicopters p.33	Understanding helicopter safety instructions	Imperatives	Helicopter safety instructions
	Off-shift in the canteen p.34	Ordering food in the canteen	Asking for and about food *I'd like ... Could I have ...*	Food
	Review p.35			

		Function	Language	Vocabulary
Unit 5 Working offshore	**Oil rig systems** p.36	Describing oil rig systems	Positions *above, below, to the left of ...*	Oil rig systems
	What does it do? p.37	Asking questions about function	*What does it do?*	Oil rig systems
	Dimensions p.38	Using dimensions	Numbers	Numbers Pipe dimensions *diameter, bore*
	Offshore fixed platforms p.39	Using dimensions	Dimensions – adjectives and nouns	*long / length* *thick / thickness* *high / height*
	Asking for information p.40	Asking for information	*How long is it?* *What is the length?* *many / much*	Numbers Dimensions
	Health and safety: In the sick bay p.41	Describing basic medical problems	*have / have got*	Medical problems
	Crew quarters p.42	Describing the crew quarters on an oil rig	*There is ... / There are ...* *It is ... / They are ...*	Crew quarters
	Review p.43			
Unit 6 Refining	**Refineries** p.44	Describing refineries	Greeting visitors	Parts of a refinery
	Parts of a refinery p.45	Describing refineries	*This is ... / These are ...* *This provides ...*	Parts of a refinery
	Refinery jobs p.46	Describing refinery jobs	Present simple	Refinery jobs
	In the control room: PCBs and resistors p.47	Using colours	*What does ... ? / What do ... ?*	Colours
	Dates p.48	Using days, months and dates	Ordinal numbers	Days Months Dates
	Health and safety: Emergency procedures p.49	Describing emergency procedures	Imperatives	Emergency procedures
	Talking about the weather p.50	Talking about the weather	*It is ...* *It's going to be ...*	Weather Numbers
	Review p.51			
Unit 7 Storage	**Petroleum products** p.52	Describing petroleum products	*are used ...* *you can see ...* *was built ...*	Petroleum products Numbers
	Properties p.53	Describing properties of petroleum products	Present simple *are made from ...*	Properties of materials
	Describing storage facilities p.54	Describing storage facilities	Comparatives Superlatives	Adjectives
	Health and safety: Fire safety p.55	Explaining how to operate a fire extinguisher	Imperatives	Parts of a fire extinguisher
	Incident reports p.56	Reporting past incidents	Past simple	Incidents
	Talking about past incidents p.57	Reporting past incidents	Past simple	Incidents
	In the storeroom p.58	Requesting items from the storeroom	*I need a ... / some ...* *Do you have any ...* *What type?* *Can you order some?*	Hand tools Hardware
	Review p.59			
Unit 8 Transport	**Laying a pipeline** p.60	Explaining about laying a pipeline	Present simple	Stages of laying a pipeline Pipeline jobs
	Reporting progress p.61	Reporting progress	Past simple	Stages of laying a pipeline
	A pipeline route p.62	Describing a route	*will* for talking about the future	Directions
	Pipeline jobs p.63	Describing pipeline jobs	Present simple	Pipeline jobs
	Oil tankers p.64	Describing types of oil tanker	Large numbers	Numbers *draft, beam, air draft*
	Health and safety: Vehicle maintenance p.65	Using a vehicle maintenance checklist	Past simple	Parts of a road tanker
	Off-shift: Life on a supertanker p.66	Describing hobbies and interests	Adverbs of frequency *never, sometimes* *twice a week*	Hobbies and interests
	Review p.67			

Partner files: Student A p.68

Audioscript p.69

Partner files: Student B p.79

1

The oil industry

- Introduce yourself and others
- Talk about getting oil to the customer and oil fields around the world
- Talk about jobs in the oil industry
- Say the letters of the alphabet
- Talk about personal protective equipment (PPE)

Introductions

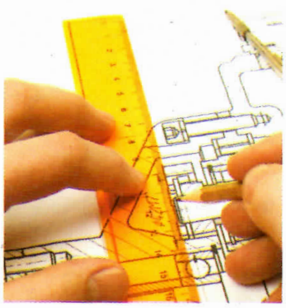
Listening

I am → I'm
You are → You're
He/She/It is → He's/She's/It's
We are → We're
You are → You're
They are → They're

1 02 Listen and read. Match the texts 1–5 with the pictures A–E.

1 Hi. My name is Armando Panganiban. I'm from the Philippines. I'm a driver. *E*
2 Hello. My name's Ricardo Cabrera. I'm from Venezuela. I'm a roustabout. C
3 I'm Ali bin Khalid, from Saudi Arabia. I'm an engineer. Nice to meet you. A
4 Hi, I'm Jennifer Burgess. I'm from Scotland. I'm a radio operator. B
5 Hello. I'm Matthew Aondoakaa from Nigeria. I'm a seismic operator. D

A



B

C

D

E

Speaking

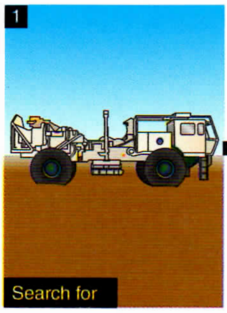
2 Practise the conversation in pairs.

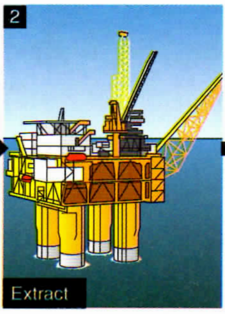
A: What's your name?	B: Armando Panganiban.
A: Where are you from?	B: I'm from the Philippines.
A: What do you do?	B: I'm a driver.

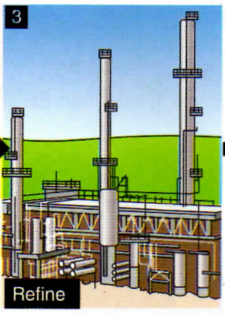
3 Practise in pairs. Ask and answer questions about Ricardo Cabrera, Ali bin Khalid, Jennifer Burgess and Matthew Aondoakaa. Then find a different partner and repeat.

Getting oil to the customer

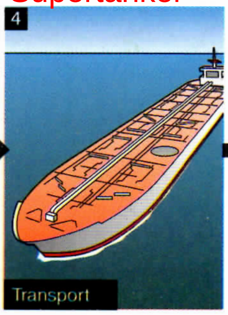
Listening 1 03 Listen. Write the names under the photos.

1


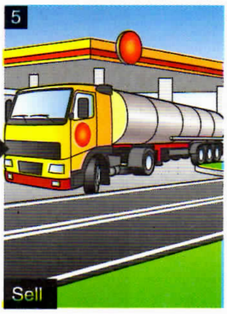
2


3


Supertanker

4


Roadtanker

5


Matthew Aondoakaa …… Ricardo Cabrera …… Ali bin Khalid …… Jeniffer Burgess …… Armando Panganiban ……

Vocabulary 2 Complete the table.

Name	Job	Work location
Armando Panganiban	driver	road
Ricardo Cabrera	*roustabout*	oil rig (offshore)
Ali bin Khalid	engineer	*refinery*
Jennifer Burgess	*radio operator*	supertanker
Matthew Aondoakaa	seismic operator	countryside

3 Are these sentences true (T) or false (F)?

off shore-outland(at the sea)

on shore-inland (

1 Armando is a driver. He drives a road tanker. [✓ T]/F
2 Matthew works on an oil rig. T/F F
3 Ricardo is a roustabout. T/F T
4 Ali is an engineer at a refinery. T/F T
5 Jennifer is a radio operator on an oil rig. T/F F

Language Ireland - Cliffs of Moher complain-queja, nemultumire

Present simple

We use the **present simple** to talk about something that is always or usually true.	*I/You/We/They* ***work*** *on an oil rig / at the refinery / in Nigeria.* *He/She* ***works*** *on an oil rig / at the refinery / in Nigeria.*

Present simple of *be*

The **present simple** of ***be*** is irregular.	*I* ***am*** *a driver.* *You/We / They* ***are*** *a driver / drivers.* *He / She* ***is*** *a driver.*

4 Talk about your classmates.

Richard Smith is from Alaska. He's a driver. He works in …

Spelling

Listening **1** 04 Listen and repeat.

The alphabet
A, H, J, K
B, C, D, E, G, P, T, V, Z (American English)
F, L, M, N, S, X, Z (British English)
I, Y
O
Q, U, W
R

2 05 Listen and fill in the missing letters.

1 *e* *n* g *i* n *e* *e* r
2 ___ ___ e ___ ___ t ___ ___
3 ___ ___ i ___ ___ r
4 ___ ___ u ___ t ___ b ___ ___ t
5 ___ e ___ ___ ___ e ___ y
6 ___ ___ l ___ ___ g
7 ___ ___ n ___ ___ r

3 06 Listen and read.

1 A: Hello. My name's Cabrera. That's C-A-B-R-E-R-A.
B: Thank you.
2 A: Panganiban.
B: How do you spell that?
A: It's Panganiban. P-A-N-G-A-N-I-B-A-N.
B: Thank you.
3 A: Matthew Aondoakaa.
B: Pardon?
A: Aondoakaa. That's A-O-N-D-O-A-K-double A.
B: Thank you.

4 07 Underline the items you hear.

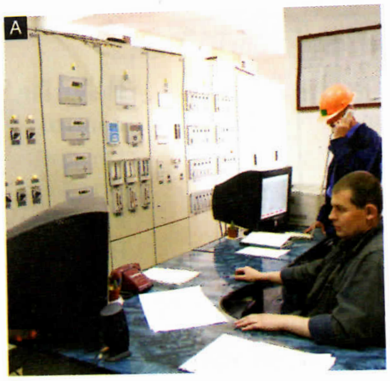
PPE API KV RPM VDU CO USA UAE TSR

Speaking **5** Practise in pairs. Ask and answer questions like those below. Then change partners and repeat.

A: What's your name?
B: Smith.
A: How do you spell that?
B: S-M-I-T-H.
A: Thank you.

Jobs

Reading 1 Read about different crews. Match the texts to the pictures of the jobs.



1 I work on a supertanker. We have a crew of 25. We live on the ship. The captain's in charge. We transport the oil. D
2 Here is my crew. We live and work on an oil rig. The driller is in charge. He's the boss. We extract the oil. I'm a roustabout.
3 Our crew is small. We have a surveyor and three seismic operators. We search for oil. We work in the countryside.
4 The refinery is big. I work in the control room. I supervise the control room operators so I'm the supervisor. We control the refinery. We refine the oil.

Listening 2 08 Listen and write down the words you hear.

1 We transport the oil.
2 We ________________ the oil.
3 We ________________ for oil.
4 We ________________ the oil.
5 I work on a ________________ .
6 We work on an ________________ .
7 We work in the ________________ .
8 We work in the ________________ .
9 I'm the ________________ .
10 I'm the ________________ .
11 I'm a ________________ .
12 I'm a ________________ operator.
13 I'm a ________________ .
14 I'm a ________________ operator.

extract
search
refine
supertanker
oil rig
countryside
controlroom
supervisor
captain
surveyor
seismic operator
driller
control room

Speaking 3 Practise in pairs. Talk about the pictures. Don't read the texts.

This man works in the refinery control room. He supervises ... .

Introducing yourself and others

Listening **1** 09 Listen to and read the conversations.

Conversation 1
John: Hi. Welcome to the crew. My name's John. I'm the driller, so I'm in charge of this crew.
Ahmed: Thanks. I'm Ahmed.
John: This is Harry. And that's Martin. They're roughnecks.
Ahmed: Excuse me. Roughnecks?
John: Roughnecks. They do all the general jobs.
Ahmed: Oh, OK.

Conversation 2
Sayed: Hello. I'm Sayed. I'm the new control room operator.
Brian: Oh, good to see you, Sayed. I'm Brian. I'm the supervisor. This is Frank. He's an operator, too.
Sayed: Hi, Frank.
Frank: Hello, Sayed.

Conversation 3
Manuel: Hi. I'm looking for Fred. I'm Manuel.
Fred: Hi. I'm Fred. Are you the new radio operator?
Manuel: Yes, that's right.
Fred: Oh, good. Come with me. I'll show you the radio room.

Conversation 4
Antonio: Hello. My name's Antonio.
Chris: Pardon?
Antonio: Antonio.
Chris: Hi, Antonio. I'm Chris. Are you the new surveyor?
Antonio: Yes, that's right. Antonio Rivaldi.
Chris: Good to meet you. I'm a surveyor, too.

Roughneck? → *What is a roughneck?*

Pardon? → *Please repeat.*

2 Read the conversations again. What is the difference between the words in red and the words in blue in Conversation 1? Find similar phrases in Conversations 2, 3 and 4.

Language

Asking questions

We use **questions** to get information. The word order in questions is different from positive and negative sentences and we can use special questions words.

Is *he the supervisor?*
Are *you John?*
What's *your name?*
What do *you do?*
Where do *you work?*
How do *you spell that?*

3 Read the conversations above again. Underline the questions.

Speaking **4** Practise in pairs. Ask and answer questions about Harry, Martin, Sayed, Brian, Frank, Manuel, Fred, Antonio and Chris.

A: Where does John work?
B: He works on an oil rig.
A: What does he do?
B: He's a driller.

*What **does** he do?*
→ What's his job?

Health and safety: Personal protective equipment (PPE)

Vocabulary **1** Look at these pictures. Say the words.

Gloves 1

Safety glasses

Helmet

Boots

Ear protectors

Trousers

Jacket

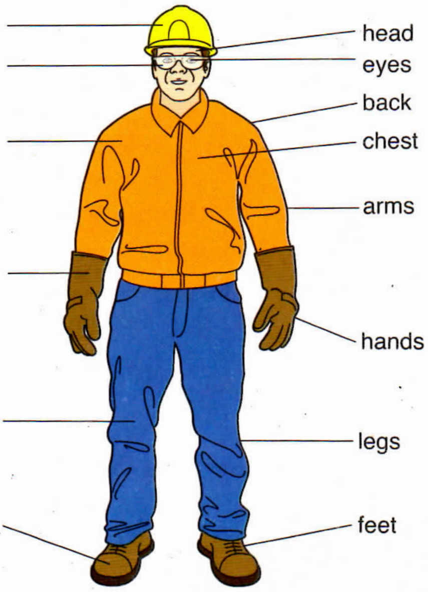
Listening **2** 10 Listen and write the correct number next to the pictures above.

3 11 Listen and write down the PPE items you hear.

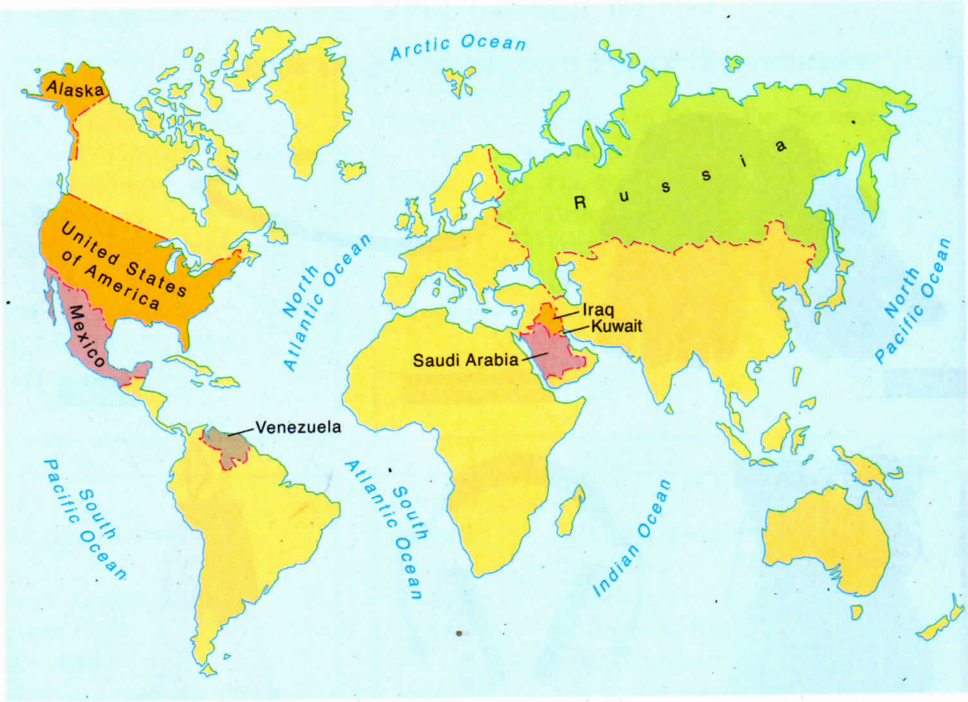
1 *ear protectors*
2
3
4
5

Speaking **4** Look at the picture and label the PPE items. Then practise in pairs. Ask and answer questions about PPE items.

A: What does a helmet protect?
B: It protects the head.
A: What do gloves protect?
B: They protect the hands.



Oil fields


Arctic Ocean
Alaska
United States of America
Mexico
North Atlantic Ocean
Russia
Iraq
Kuwait
Saudi Arabia
North Pacific Ocean
Venezuela
South Pacific Ocean
South Atlantic Ocean
Indian Ocean

Listening **1** 12 Listen and mark the stress. Then repeat.

1 Venezuela
2 Mexico
3 USA
4 Saudi Arabia
5 Kuwait
6 Alaska
7 Iraq
8 Russia

2 13 Listen. Match the oil fields to the countries or state.

Oil fields	**Countries or state**
1 Samotlor	a) Venezuela
2 Prudhoe Bay	b) Mexico
3 East Texas	c) USA
4 Cantarell	d) Saudi Arabia
5 Greater Burgan	e) Kuwait
6 Rumaila	f) Alaska
7 Ghawar	g) Iraq
8 Bolivar Coastal	h) Russia

Speaking **3** Practise in pairs. Test yourselves. Then find a new partner and repeat.

A: Where is Ghawar?
B: I think Ghawar is in Saudi Arabia.
A: Where is East Texas?
B: I'm sure East Texas is in the USA.

Review

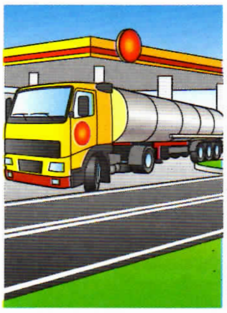
Writing

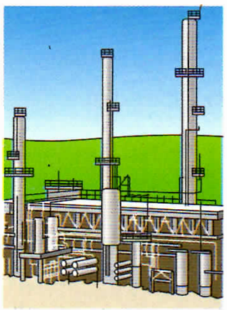
1 Use *what* or *where* to complete the questions.

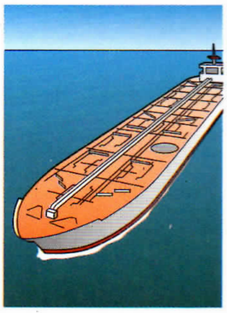
1 Where ______ do you work?
2 ______ do you do?
3 ______'s my helmet?
4 ______'s a roughneck?
5 ______'s your name?
6 ______ are you from?
7 ______ does he do?

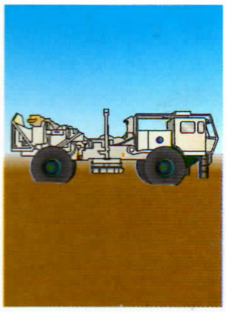
2 Label the pictures with the words in the box.

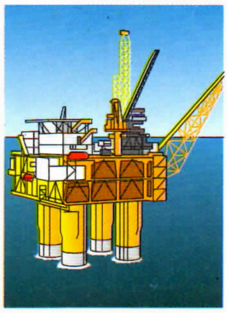
extract search for refine ~~sell~~ transport


1 sell


2 Refine


3 Transport


4 Serch for


5 Extract

3 Find the names of six more countries and one state.

g	j	g	e	y	a	e	d	k	c	v
m	e	x	i	c	o	r	f	u	v	e
t	h	i	d	x	s	g	c	w	p	n
h	u	o	f	r	a	b	r	a	x	e
k	s	p	s	z	l	n	u	i	l	z
v	a	l	i	r	a	q	s	t	k	u
c	g	j	g	i	s	m	s	u	y	e
a	e	a	h	o	k	k	i	h	j	l
s	a	u	d	i	a	r	a	b	i	a

4 Complete the texts. Then go to page 7 to check your answers.

1 I work on a super (1) tanker ______ . We have a crew of 25. We live on the (2) ship ______ . The Captain's (3) in ______ charge. We transport the oil.

2 The refinery is big. I work in the control (4) room ______ . I supervise the control room operators. I'm a (5) supervisor ______ . We control the refinery. We refine the (6) oil ______ .

5 Write down five of each of these.

1 PPE items
2 *parts of the body*
3 *jobs in the oil industry*
4 things about yourself balanced

2 Looking for oil

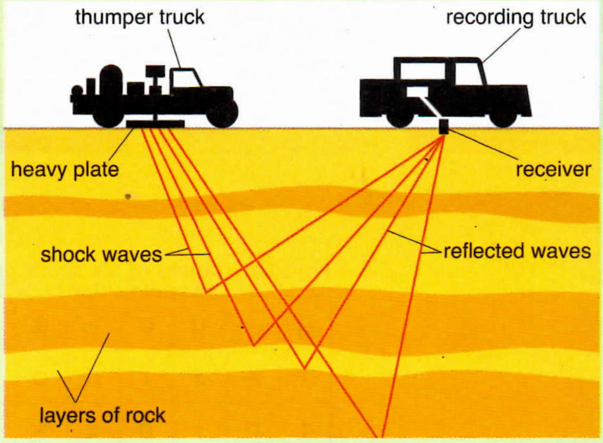
- Talk about looking for oil
- Use numbers (1 to 100)
- Say where things are
- Understand and give simple instructions
- Give personal information

On land

Reading 1 Read the text and underline words from the diagram.

Seismic operators search for oil. On land we use a thumper truck. The thumper truck carries heavy plates. Heavy plates are the energy ~~source. The heavy plates~~ hit the ground and make shock waves. Sometimes we use explosives~~. The explosion~~ is the energy source. The explosion sends shock waves through the rock. The layers of rock reflect the waves ~~to the receiver~~. We call these reflected waves. We use ~~computers in the~~ recording truck to record the ~~data and to~~ analyse the data.

Explosives



Vocabulary 2 Match the words 1–6 with the words a–f to make partnerships.

1 thumper	a) operator
2 energy b	b) source
3 shock e	c) plate
4 recording d	d) truck
5 seismic a	e) wave
6 heavy c	f) truck

Listening 3 14 Listen. Write down the words you hear. Read the words aloud.

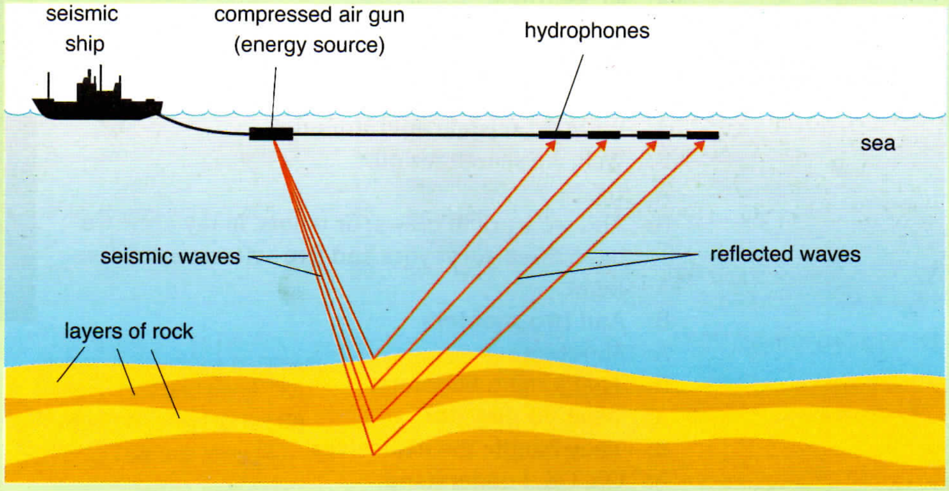
Speaking 4 Practise in pairs. Use the diagram. Ask and answer questions.

A What's this?
B: It's a heavy plate.
A: What does it do?
B: It hits the ground and makes shock waves.

B: What are these?
A: They're shock waves.
B: What do they do?
A: They go through the rock.

At sea

Reading 1 Complete the text with words from the diagram.



At sea we use a seismic ship.
The energy source is a (1) compressed air gun or explosives.
The (2) waves waves are reflected to receivers.
The receivers are (3) hydrophones .
The layers of (4) rock give different data.

Listening 2 15 Listen and mark the stress. Then listen again and repeat the words.

1 hydrophones
2 reflected
3 receiver
4 energy
5 explosives
6 different

Writing 3 Write the words in the correct order.

1 At sea seismic we a use ship . At sea we use a seismic ship
2 The energy source is explosives compressed gun air a or . The sourse of energy is comressed air gun or explosives
3 The waves are to reflected receivers .The waves are reflected to receivers
4 The receivers hydrophones are .The receivers are hydrophones
5 The layers of different rock give data .The layers of rock give different data

4 Complete the text.

Seismic operators work on land and at sea. On land the energy source is a heavy plate or an explosion. At sea the energy source is a compressed air gun. The waves from the energy source hit the layers of rock and are reflected to receivers. Computers record and analyse the data.

Speaking 5 Practise in pairs. Explain how seismic operators search for oil on land and at sea. Draw diagrams to help.

On land seismic operators use thumper trucks. At sea they use seismic ships. ...

Seismic operators

Listening

1 16 Listen to and read the conversation.

A: Hi, Matthew.
B: Hi.
A: What do you do?
B: I'm a seismic operator.
A: What do seismic operators do?
B: Well, we search for oil.
A: OK.
B: And we work in crews, or teams. In my crew we have three surveyors and five seismic operators.
A: Right.
B: And two shooters.
A: Shooters?
B: That's right. Shooters.
A: What do they do?
B: They handle the explosives.
A: Oh, OK. I understand.
B: First, we survey the land. We look for the best places to go.
A: I see.
B: Then we clear the land. We remove trees and bushes, for example.
A: OK.
B: Then we do our tests. We operate thumper trucks. The heavy plates send shock waves into the rock. We use receivers to record the data and we use computers to analyse the data.
A: What about the shooters?
B: The shooters? Well, sometimes we don't use thumper trucks. Sometimes we use explosives. The shooters drill holes into the ground and prepare the site. Then they detonate the explosives. The explosives send shock waves through the rock. We use receivers to record the data from the shock waves. Then we use computers to analyse the data.
A: Do you like your job?
B: Yeah, I do.

2 Find verbs that go with these nouns.

1 *handle* explosives
2 survey/clear the land
3 do/perform tests
4 use/operate thumper trucks
5 send shock waves
6 record/analyse data
7 drill holes

Language

Plurals

There are three different ways to make regular **plurals**: add *-s*, add *-es* or remove the *y* and add *-ies*. Some plurals are irregular.	*truck* → *trucks*
	bush → *bushes*
	country → *countries*
	foot → *feet*

Pronunciation

/s/ /z/ or /ɪz/

/s/	plates, shooters
/z/	waves, eyes
/ɪz/	bushes

3 Read the conversation again. Underline the questions Then practise in pairs. Ask and answer these questions.

1 What do seismic operators do?
2 What do surveyors do?
3 What do shooters do?

Numbers

Language

Numbers 1 to 100

1	one	11	eleven	21	twenty-one
2	two	12	twelve	22	twenty-two
3	three	13	thirteen	30	thirty
4	four	14	fourteen	40	forty
5	five	15	fifteen	50	fifty
6	six	16	sixteen	60	sixty
7	seven	17	seventeen	70	seventy
8	eight	18	eighteen	80	eighty
9	nine	19	nineteen	90	ninety
10	ten	20	twenty	100	one hundred

Pronunciation

Note the difference between:
thirteen (13) and thirty (30)
fourteen (14) and forty (40)
sixteen (16) and sixty (60)

Listening

1 17 Listen and circle the numbers you hear.

a) 4 14 [✓ 40]
b) 3 13 30
c) 12 14 16 60
d) 2 12 22 32
e) 9 19 49 99

2 18 Listen and write the numbers you hear.

a) five
b) ______
c) ______, ______
d) ______, ______, ______
e) ______, ______, ______
f) ______, ______
g) ______, ______, ______
h) ______, ______

Writing

3 What's next? Write the answer and compare in pairs.

a) 1, 2, 3, 4
b) 3, 5, 7, ______
c) 2, 4, 6, ______
d) 9, 10, 11, ______
e) 20, 30, 40, ______
f) 19, 18, 17, ______

4 Write the numbers.

a) forty-one 41
b) twenty-three ______
c) thirty-nine ______
d) thirteen ______
e) twelve ______
f) seventy-four ______

Speaking

5 Say the following three times, as fast as possible. Then make up similar 'tongue twisters'.

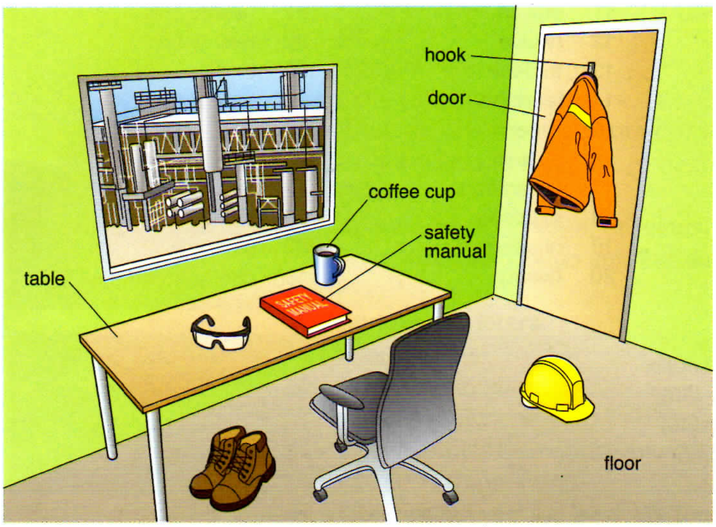
a) Three thumper trucks
b) Sixty-six seismic operators
c) Forty-four hydrophones

6 Practise in pairs. Take turns to give instructions.

A: *Count from one to ten.*
B: *OK. One, two, three, four, five, six, seven, eight, nine, ten. Now your turn. Count backwards from eighty-seven to seventy-eight.*
A: *OK. Eighty-seven, eighty-six, eighty-five, …*

Where is it?

Vocabulary **1** Look at the picture. Read the sentences about the picture.



1 The safety manual is on the table.
2 The boots are under the table.
3 The safety glasses are next to the manual.
4 The helmet is on the floor, between the table and the door.
5 My jacket is behind the door, on the hook.
6 The table is in front of the window.
7 The coffee is in the cup.

Writing **2** Complete the sentences.

1 Where's the helmet?
It's on ____________ the floor, ____________ the table and the door.
2 Where's the jacket?
It's ____________ the door, ____________ the hook.
3 Where's the coffee?
It's ____________ the cup.
4 Where are the glasses?
They're ____________ the manual.
5 Where are the boots?
They're ____________ the table.
6 Where's the manual?
It's ____________ the table.

Speaking **3** Practise in pairs. Use things in the room.

A: *Where are the keys?*
B: *They're on the table.*

Keys

Pen

Mobile phone

Bottle of water

Window

Cupboard

Health and safety: Instructions

Vocabulary

1 Practise in pairs. Take turns to give and follow instructions.

1 Stand up. Don't stand up. Sit down.
2 Point to the door. Don't point to the door. Point to the window.
3 Wave. Don't wave. Touch your head.
4 Stand near the door. Don't stand near the door. Stand near the window.
5 Turn on the lights. Turn off the lights.
6 Don't put your book under the table. Put your book on the table.

***Don't** touch. → Do not touch.*
***Don't** do that. → Do not do that.*

Listening

2 19 Listen to and read the conversation.

Shooter:	OK, your first job. Explosives are dangerous, so be careful.
Assistant:	OK.
Shooter:	First of all, turn off that phone. No phones with explosives.
Assistant:	Sorry.
Shooter:	No problem. Now. Bring the box over here.
Assistant:	OK.
Shooter:	And put the spare cables on the truck. Yellow on the right, red on the left.
Assistant:	OK.
Shooter:	And keep an eye on the road. Any cars, call me. OK?
Assistant:	OK.
Shooter:	And don't touch that flask. It's my coffee. Not yours!
Assistant:	OK!

3 Complete the instructions with the words in the box.

bring be ~~turn~~ keep put touch

1 turn off the phone.
2 bring the box here.
3 be careful.
4 put the cables on the truck.
5 keep an eye on the road.
6 Don't touch the flask.

Language

Instructions

We use the infinitive without *to* to give **instructions**.	***Turn on** the lights.*
	***Turn off** that phone.*
	***Stand** up.*
	***Sit** down.*
We add ***please*** to make the instructions more polite.	*Please **don't touch**.*
	*Please **turn on** the lights.*
	***Sit** down, please.*

4 Play 'Simon says'. Your teacher will explain the game.

Giving personal information

Listening

1 20 Listen and repeat the telephone numbers.

a) 0780 786 3487 b) 675 489 955 c) 546 389 2001

2 21 Listen and correct these numbers.

a) 030 3562 8~~9~~88 7
b) 0071 253 628 998
c) 0049 756 463 839
d) 030 456 347 328
e) 0786 747 636 468

3 22 Listen and complete the conversations.

Conversation 1

A: What's your (1) *name*?
B: Jason Henley.
A: Is Jason your given name?
B: Yes, Henley is my family name.
A: OK. Where do you (2) ________?
B: My address is 27 Port Drive, Aberdeen.
A: Did you say 27?
B: Yes, that's right.
A: And how old are you, (3) ________?
B: I'm 28.
A: 28? OK. Good. What's your job?
B: I'm a (4) ________ on an oil rig.
A: Thank you.

Conversation 2

A: What's your name, please?
B: John Karuett.
A: Can you (5) ________ that, please?
B: Yes, sure. It's John, J-O-H-N, Karuett, K-A-R-U-E-double T.
A: Thank you. And your (6) ________?
B: 45 Julienne Street.
A: OK. Postcode?
B: 24351.
A: Age?
B: (7) ________.
A: Height?
B: Six foot one.
A: Weight?
B: 93 kilos.
A: OK. And what do you do?
B: I'm a shooter?
A: Pardon?
B: A shooter. I work with (8) ________.
A: OK. Thank you.

4 Complete the table. The third column is for you.

Given name	Jason	John	You
Family name			
Address			
Telephone number			
Age			
Job			
Height			
Weight			

Speaking

5 Practise in pairs. Ask and answer questions.

A: *What's your telephone number?*
B: *It's 2345 67876. And yours?*
A: *It's 34556786. How old are you?*
B: *I'm 23. And you?*
A: *I'm 31. How tall are you?*
B: *I'm five foot eleven inches. And you? What's your height?*
A: *I'm five foot seven inches. How heavy are you?*
B: *I'm 88 kilos. And you? What's your weight?*
A: *I'm 99 kilos.*

Review

Writing **1** Write the plurals.

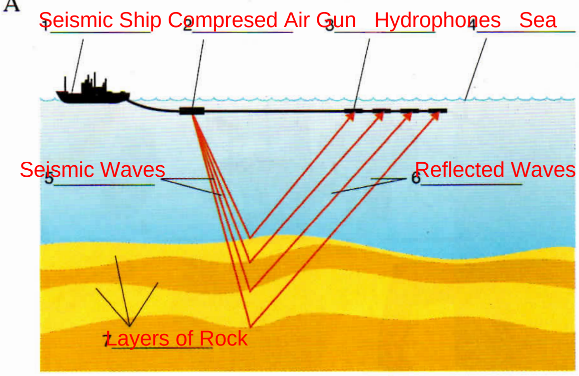
1 flask ____________
2 bush ____________
3 explosive ____________
4 operator ____________
5 inch ____________
6 shooter ____________
7 country ____________

2 Write these numbers in words.

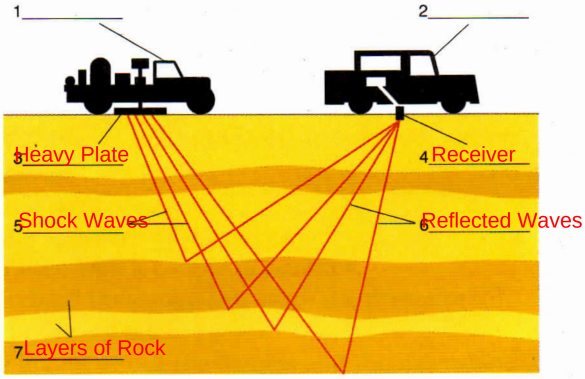
1 15 ____________
2 16 ____________
3 34 ____________
4 56 ____________
5 73 ____________
6 98 ____________

3 Label these diagrams.

A


1 Seismic Ship
2 Compresed Air Gun
3 Hydrophones
4 Sea
5 Seismic Waves
6 Reflected Waves
7 Layers of Rock

B


1
2
3 Heavy Plate
4 Receiver
5 Shock Waves
6 Reflected Waves
7 Layers of Rock

4 What do shooters do? Write three sentences.

They handle explosives/They survey the land/ They look for the best places/They clear the lands/ They remove trees and bushes.

5 Write six sentences about the room.

The cell phone is on the table. The door is open.

6 *Write the opposite.*

1 Stand up. *Don't stand up. / Sit down.*
2 Turn on the phone. Don't turn on the phone/Turn off the phone
3 Touch the table. Don't touch the Table
4 Point to the door. Don't point the door
5 Wave. Don't wave
6 Put the book on the table. Don't put yhe book on the table

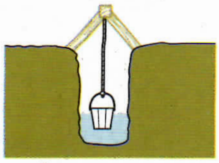
3

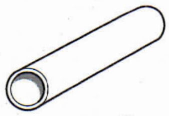
Oil fields

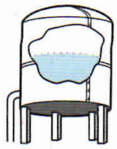
- Talk about oil field equipment
- Give and understand instructions for operating equipment
- Describe control panels
- Tell the time
- Understand warning signs
- Make conversation

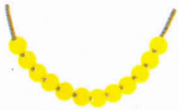
Oil field equipment

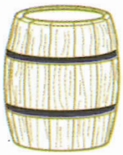
Vocabulary **1** 23 Listen and write down the labels for the pictures.

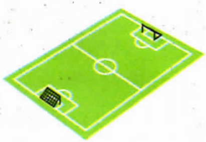

1 *well*

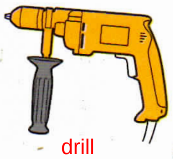

2 pipe


3 tank

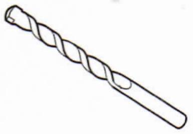

4 string

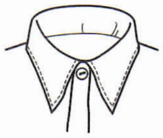

5 barrel


6 field


7 drill

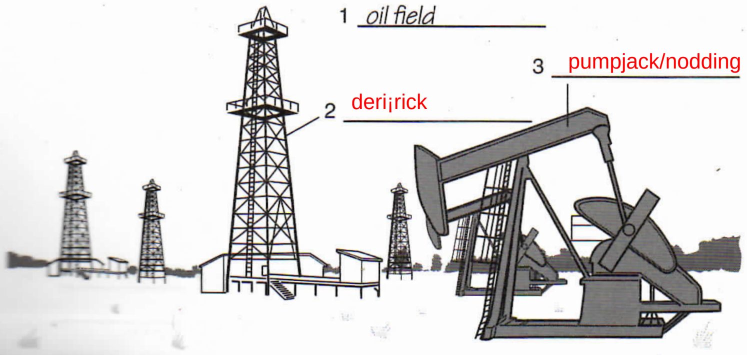
8 hole

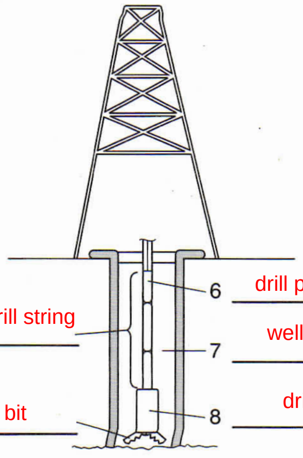

9 bit


10 collar

2 Label these diagrams with the words in the box.

well hole pumpjack derrick drill pipe
drill string drill collar drill bit ~~oil field~~


1 *oil field*
2 deri¡rick
3 pumpjack/nodding donkey

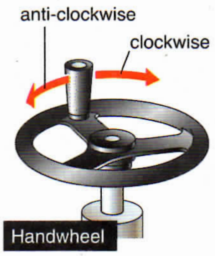

4 drill string
5 drill bit
6 drill pipe
7 well hole
8 drill collar

Speaking **3** *Practise in pairs. Look at the diagrams. Ask and answer questions.*

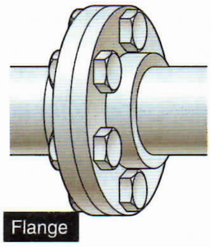
A: What's this?
B: It's a drill pipe. What are those?
A: Those are derricks.

Operating equipment

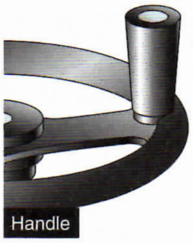
Vocabulary **1** Look at the pictures on the left. Then look at the photo on the right. What can you name?



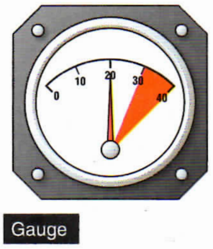
rueda manual



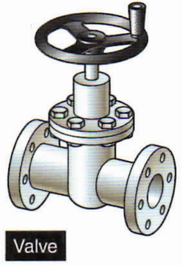
Brida



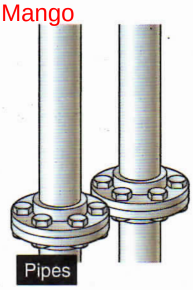
Mango



Indicador



Valvulas



Tuberias

Listening **2** 24 Listen to and read the conversation.

Supervisor:	**Trainee:**
OK. Listen carefully.	Understood.
First, you turn this handwheel.	Clockwise?
No, anti-clockwise.	OK, anti-clockwise.
Turn it until it's open.	OK. Until it's open.
Next, close this valve.	OK. Then close the valve.
And then wait a couple of minutes.	*Wait a couple of minutes.*
Then read the gauge and write the pressure in the log book.	OK. Got that.
And finally, check the flanges and the valves.	*For leaks?*
Yes, that's right.	

3 Match the verbs 1–5 with the nouns a–e.

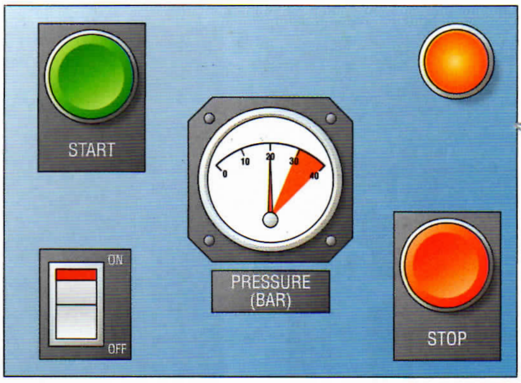
1 Turn	a) the gauge
2 Close	b) the pressure
3 Read	c) the valve
4 Write	d) the wheel
5 Check	e) the flanges

Speaking **4** Work in pairs. Student A turn to page 68. Student B turn to page 79.

5 Now compare your notes with others in the class.

Control panels

Reading **1** Look at the picture and read the description.



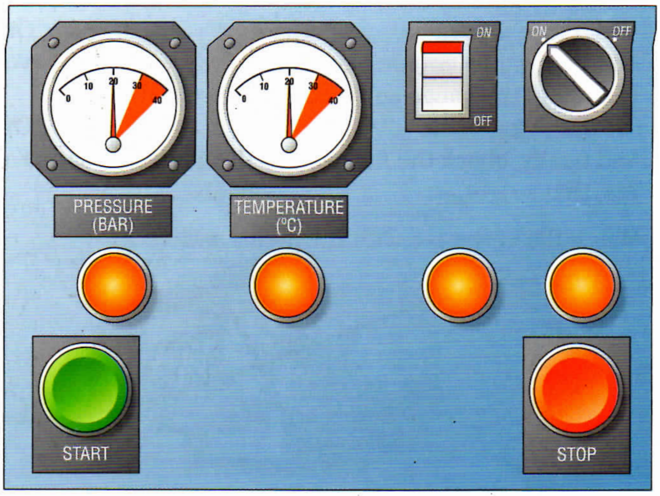
Look at this control panel.
There's a start button top left.
There's a stop button bottom right. The pressure gauge is in the middle. There's a warning lamp top right and the on/off switch is bottom left.

Language

There is / There are

We use ***there is / there are*** to say something or somebody exists.	***There is / There's*** *a lamp on the panel.*
	There are *three lamps on the panel.*
In the plural negative form we use *any*, not a number.	***There isn't*** *(**is not**) a switch.*
	There aren't *(**are not**) any switches.*
In questions we use *any*, not a number. In short answers we omit the noun.	*A:* ***Is there*** *a start button?*
	B: Yes, ***there is****. / No,* ***there isn't*** *(**is not**).*
	A: ***Are there*** *any buttons?*
	B: Yes, ***there are****. / No,* ***there aren't*** *(**are not**).*

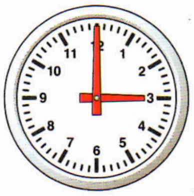
2 Now look at this control panel. Write a description like the one above.



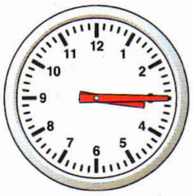
Speaking **3** Work in pairs. First draw a control panel. Put the controls where you like. Then describe it for your partner to draw.

Telling the time

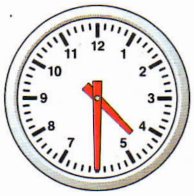
Vocabulary **1** ▶ 25 Listen and repeat the times.



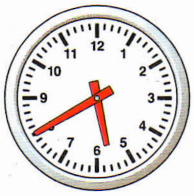
a) three o'clock



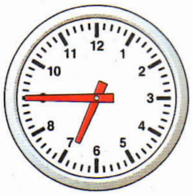
b) three fifteen



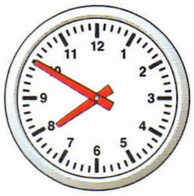
c) four thirty



d) five forty

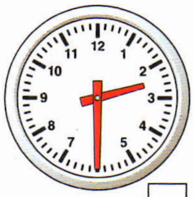


e) six forty-five

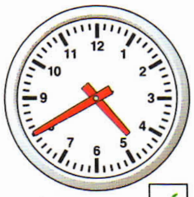


f) seven fifty

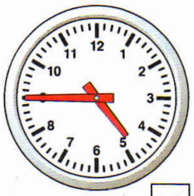
2 ▶ 26 Listen and tick the times you hear.



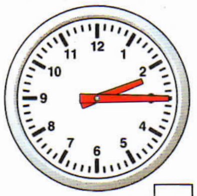
☐



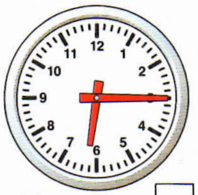
☑



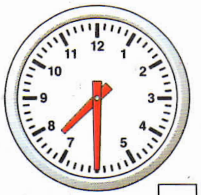
☐



☐



☐



☐

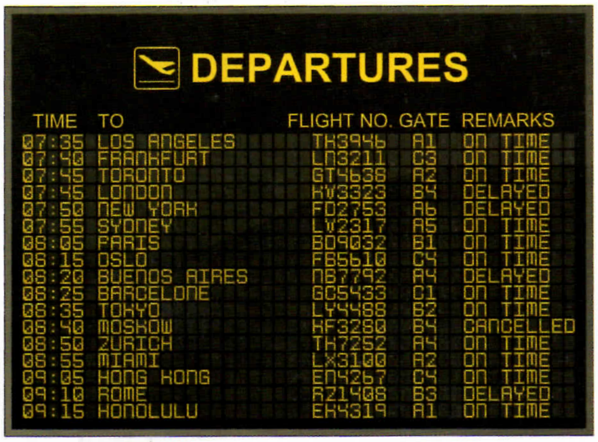
3 ▶ 27 Listen and write down the times you hear.

1 *Six o'clock*
2 __________
3 __________ , __________
4 __________ , __________
5 __________ , __________

Listening **4** ▶ 28 Look at the departures board. Listen to the conversation.

Speaking Practise in pairs. Ask and answer questions about other flights.

A: *What time does the flight to Los Angeles depart/leave?*
B: *At seven thirty-five.*
A: *What's the flight number?*
B: *TH3946.*
A: *What's the gate?*
B: *A1.*
A: *Is it on time?*
B: *Yes, it is. / No, it isn't. It's delayed / cancelled.*
A: *Thank you. / Thanks.*



DEPARTURES

TIME	TO	FLIGHT NO.	GATE	REMARKS
07:35	LOS ANGELES	TH3946	A1	ON TIME
07:40	FRANKFURT	LN3211	C3	ON TIME
07:45	TORONTO	GT4636	A2	ON TIME
07:45	LONDON	KV3323	B4	DELAYED
07:50	NEW YORK	FD2753	A6	DELAYED
07:55	SYDNEY	LV2317	A5	ON TIME
08:05	PARIS	BD9032	B1	ON TIME
08:15	OSLO	FB5610	C4	ON TIME
08:20	BUENOS AIRES	NB7792	A4	DELAYED
08:25	BARCELONE	GC5433	C1	ON TIME
08:35	TOKYO	LY4488	B2	ON TIME
08:40	MOSKOW	KF3280	B4	CANCELLED
08:50	ZURICH	TH7252	A4	ON TIME
08:55	MIAMI	LX3100	A2	ON TIME
09:05	HONG KONG	EN4267	C4	ON TIME
09:10	ROME	AZ1408	B3	DELAYED
09:15	HONOLULU	EK4319	A1	ON TIME

Asking questions about equipment

Listening **1** 29 Listen and complete the sentences.

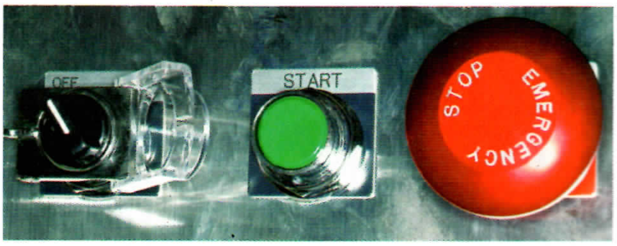
1 A: What's this?
B: It's a pressure gauge __________ .
2 A: What's this for?
B: It's for checking the oil pressure __________ .
3 A: What does this switch do?
B: It starts the motor __________ .
4 A: How do I increase the speed?
B: You slide __________ the dial.
5 A: How do I lower the pressure?
B: You open the valve __________ .
6 A: What's this thing for?
B: That's the power swich __________ . It starts the motor.
7 A: Did you say turn the handle?
B: Yes, that's right.
A: Clockwise or anti __________-clockwise?
B: Clockwise.
8 A: What do I do next?
B: Press the start button __________ .
A: OK.

2 30 Write the words in the correct order. Listen to check.

1 What's for this ? Whats this for?
2 Did you the press say button ? Did you say press the button?
3 What's gauge for this ? What's this gauge for?
4 Did you pull say lever the ? Dis you say pull the lever?
5 What this does switch do ? What does this swich do?
6 Is this button a start ? Is this a start button
7 Does this thing motor the start ? Does this thing start the motor?

Speaking **3** Practise in pairs. Use these pictures. Ask and answer questions.

PRESSURE GAUGE
kPa

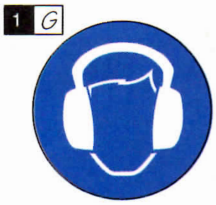


A: What's this? / What are these?
B: It's a helmet. / They're gloves.
A: What's this for? / What are these for?
B: It's for protecting your head. / They're for protecting your hands.

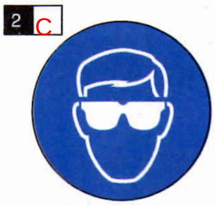
Health and safety: Warning signs

Reading **1** Here are some PPE signs. Match the instructions to the pictures.

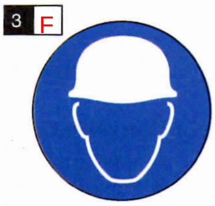
1 G



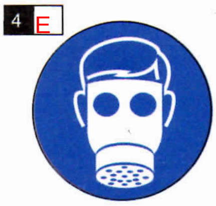
2 C



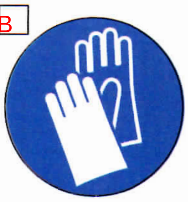
3 F



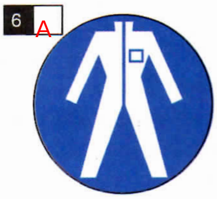
4 E



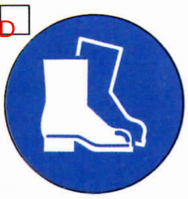
5 B



6 A



7 D



A Protective clothing must be worn

B Hand protection must be worn in this area

C Eye protection must be worn in this area

D Protective footwear must be worn in this area

E Respirators must be worn

F Safety helmets must be worn at all times

G Ear protection must be worn in this area

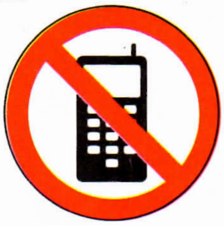
Language

must / mustn't

We use **must** or **mustn't** + infinitive for instructions that *are compulsory.*	*You **must** wear a helmet.*
	*You **mustn't** (**must not**) smoke here.*

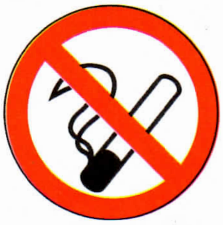
2 Write warnings using *must* or *mustn't*.

1



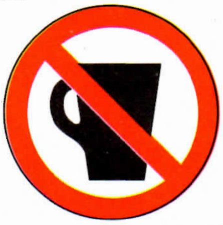
Turn off mobile phones

2



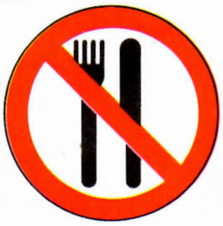
No smoking

3



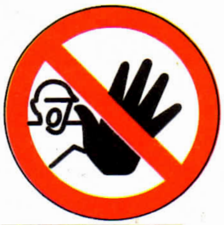
No drinking

4



No eating

5



No access beyond this point

1 You must turn off your phone.
2 You mustn't use your phone.

Speaking **3** Practise in pairs. Ask and answer questions about the signs.

A: What does this sign mean?
B: It means you must / mustn't … .

Making conversation

Listening **1** 31 Complete the conversations with the words in the box. Then listen to check.

please ~~Cantarell~~ room flask idea Kuwait valve ask

Conversation 1
A: Where's Cantarell ?
B: I think it's in Mexico.
A: Oh yes, thank you.
B: No problem.

Conversation 2
A: Where's Greater Burgan?
B: I'm sure it's in Kuwait .
A: Oh, OK.

Conversation 3
A: I think the pressure's too high.
B: Oh, yes, you're right. Open the valve .
A: OK. Good idea.

Conversation 4
A: I think the temperature's too high.
B: I don't think you're right. 200 degrees is OK.
A: Are you sure?
B: OK, go and ask Jim.
A: OK. Will do.

Conversation 5
A: Where's your hard hat?
B: In my room . Why?
A: Go and get it. You must wear a hard hat in this area.
B: Oh, OK. I didn't know that. Sorry.

Conversation 6
A: Cup of tea?
B: Good idea .
A: Milk and sugar?
B: Yes, please .

Conversation 7
A: Don't touch the flask (termos) .
B: Why? Is it yours?
A: No, it's Norman's.
B: Oh, fair enough.

Speaking **2** Practise in pairs. Use all these phrases to make a conversation. Practise your conversation and then present it to the class.

Cup of tea?
No problem.
OK. Good idea.
OK. Will do.
Good idea.
Where's …?
Oh, OK.
Are you sure?
I didn't know that. Sorry.
Fair enough.

Review

Writing **1** Complete the puzzle. What do the missing letters spell?

			c	o	l	l	a	r	
			b	i	t				
		h	o	l	e				
				f	l	a	n	g	e
			p	i	p	e			
b	a	r	r	e	l				
	w	e	l	l					
				d	r	i	l	l	
				s	t	r	i	n	g

2 Write down five different items in an oil field.

pumpjack, derrik, drill string, drill pipe, well hole, drill bit, drill colar

3 Write down three things you find on a control panel.

switches, buttons, gauges, lamps

4 Write these times in words.

1 3:25 Twenty five past three
2 6:40 twenty to seven
3 7:20 seven - twenty
4 2:10 ten past two
5 7:45 a quarter to eight

5 Look at these signs. Write what they mean.

1. You must wear helmet.Helmet must be warn

2. You mustn't eat here

3. You must wear saety boots

4. Don't smoke. You mustn't smoke.

5. You must wear gloves.Hand protection must be warn.

6 You must wear ear protection.

7. Don't drink. You mustn't drink

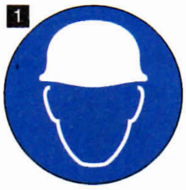
8. You must wear safety glases

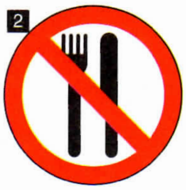
9. You mustn't go beyond this point.Overall

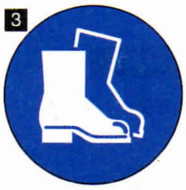
10. You must wear safety clothes

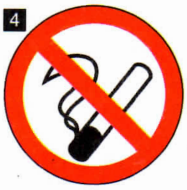
11. You mustn't use phones.Phones are forbidden

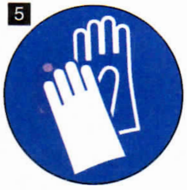
12. You must wear chemical mask

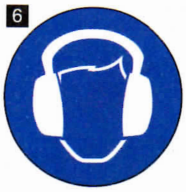
1


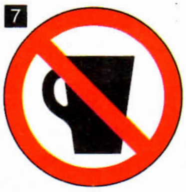
2


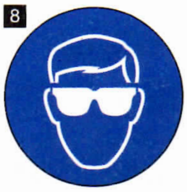
3


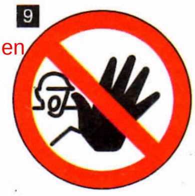
4


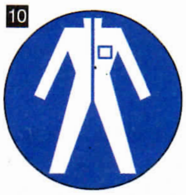
5


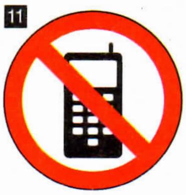
6


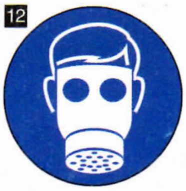
7


8


9


10


11


12


1 *You must wear a helmet.*

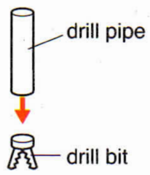
4 Drilling

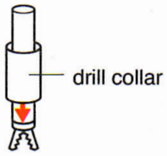
- Talk about drilling a well
- Name common hand tools
- Ask for and give directions
- Understand helicopter safety intructions
- Order food in the canteen

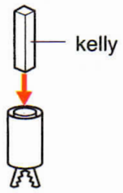
Drilling a well

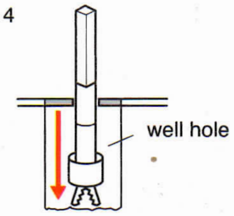
Listening

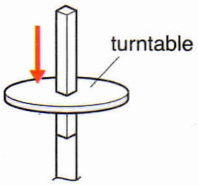
1 32 Look at the diagrams. Listen to the instructions about how to drill for oil.

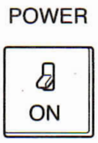
1


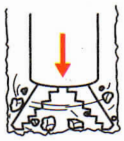
2


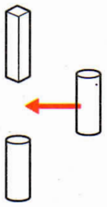
3


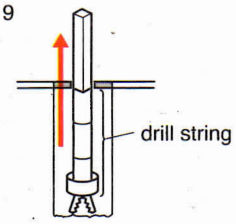
4


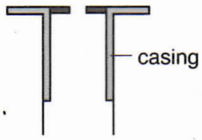
5


6


7


8


9


10


2 32 Write the correct number next to each verb. Listen again to check.

trip into = lower into
trip out of
= raise out of

a) fix 3
b) install 10
c) drill 7
d) trip into 4
e) slide 5

f) trip out of 9
g) attach 1
h) put 2
i) turn on 6
j) attach 8

Language

Sequencing

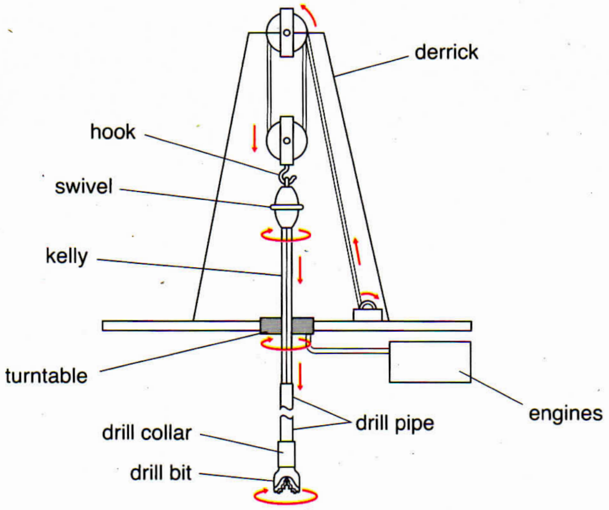
We often put **sequencing words** at the beginning of a sentence.	***First**, attach the drill pipe to the drill bit.*
	***Second** put the collar on the drill bit.*
	***Then / After that / Next** drill the hole.*
	***Finally**, install the casing in the well hole.*

3 Practise in pairs. Give instructions about how to drill for oil. Use the diagrams to help you.

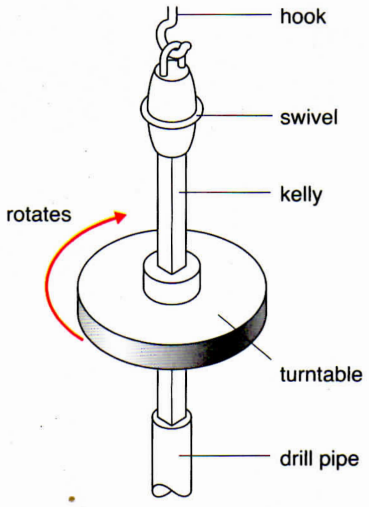
First, attach the drill pipe to the drill bit. Second, …

The rotary system

Listening **1** 33 Listen and complete the sentences with words from the diagrams. Listen again to check.



Lifting system



Rotary system

1 The ___swivel___ hangs from a hook.
2 The ___kelly___ connects the swivel to the drill pipe.
3 The kelly goes through the ___turntable___ .
4 The ___engines___ turn the turntable.
5 The turntable ___rotates___ .
6 The turntable turns the ___kelly___ .
7 The kelly turns the ___drill___ pipe.

2 Are these sentences true (T) or false (F)? Correct the false statements.

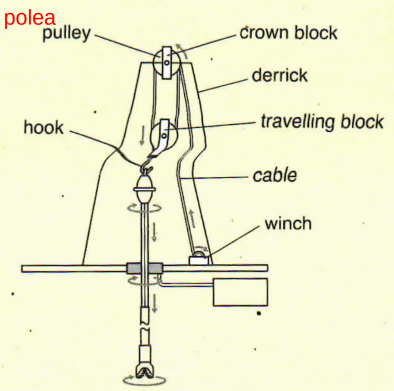
1 The turntable rotates. [✓ T]/F
2 The kelly rotates. T/F True
3 The swivel rotates. T/F True
4 The hook rotates. T/F False The hook doesn't rotate.
5 The drill pipe rotates. T/F True
6 The engines turn the turntable. T/F True
7 The turntable turns the kelly. T/F True
8 The kelly turns the turntable. T/F False. The kelly doesn't turn the turntable.
9 The kelly turns the drill pipe. T/F True
10 The drill pipe turns the kelly. T/F False. The drill pipe doesn't turn the kelly.
11 The hook connects the swivel to the drill pipe. T/F False. The hook doesn't connect the swivel to the drill pipe
12 The kelly connects the swivel to the drill pipe. T/F True
13 The swivel connects the hook to the kelly. T/F True
14 The kelly connects the drill pipe to the swivel. T/F True
15 The drill pipe connects the kelly to the turntable. T/F False. The drill pipe doesn't connect the kelly to the turntable

Speaking **3** Work in pairs. Close your books. Draw a diagram of the rotary system. Explain how it works to a partner.

A: How does the rotary system work?
B: Well, the … .

Lifting gear

Reading **1** Read the text. Underline the words from the diagram.



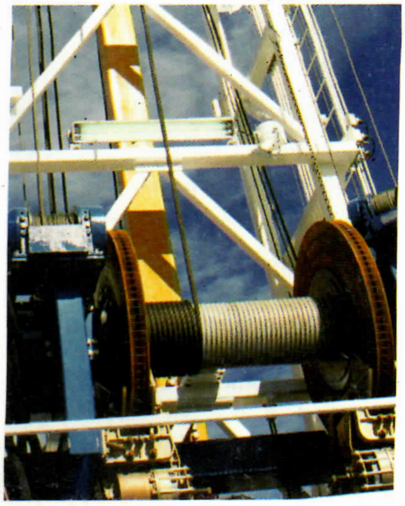
There are two blocks. Both blocks use pulleys. The cable goes from the winch to the blocks. The crown *block does not move. It is fixed to the top of the derrick. The travelling* block hangs from the crown block. It moves up and down. The winch pulls or releases the cable. When it pulls the cable, the travelling block goes up. When it releases the cable, the travelling block goes down.

2 Complete these sentences.

1 The cable *goes from the winch to the blocks*.
2 The crown block does not move. It is fixed to the top of the derrick.
3 The travelling block hangs from the crown block It moves up and down.
4 The winch pulls or releases the cable.
5 When the winch pulls the cable, the travelling block goes up.
6 When the winch releases the cable, the travelling block does down.

Speaking **3** Look at these pictures. Describe the pictures using these phrases.

This is a …
This goes from … to …
This does not …
This pulls the …
When the …, the …



Hand tools

Vocabulary **1** Match the pictures like this.

The paint brush and the paint go together.

Paint brush

Screwdriver

screewdriver

wrench

paintbrush

pliers

Hammer

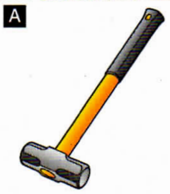
Drill

Listening **2** 34 Listen to three conversations and match them to the pictures.

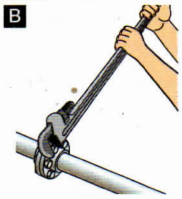
Conversation 1 ______

Conversation 2 ______

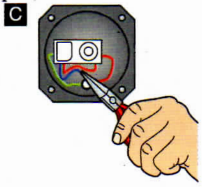
Conversation 3 ______



sledgehammer-maza



pipewrench- grifa



needle-nose pliers

Language

to / too

The words ***to*** and ***too*** have different meanings.	*The nut is **too** small.*
	*Listen **to** the instructions.*
	*We need a wrench **to** do this.*
	*They're next **to** the flask.*
	*Go from the canteen **to** the washroom.*

3 Complete the following sentences with *to* or *too*.

1 This hammer is too small.
2 The wrench is next ______ the toolbox.
3 We use computers ______ record the data.
4 Count from one ______ ten.
5 This screwdriver is ______ big.

Vocabulary **4** Match the words.

1 pipe	a) paint
2 electric	b) hammer
3 reflective	c) wrench
4 needle-nose	d) pliers
5 sledge	e) screwdriver

Speaking **5** Practise in pairs. Talk about problems you can have with the items on this page.

Directions

Vocabulary

1 35 Listen to these directions. Complete the sentences.

Where's the supervisor's office?

1 It's at the end of________________ the corridor.
2 It's down the corridor, ________________ the right.
3 It's along the corridor, third door ________________ the left.
4 It's ________________ the door.

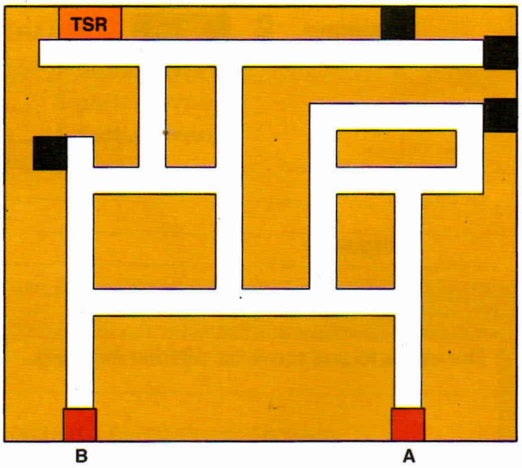
Where's the car park?

5 Go ________________ the gate. The car park is on the left.
6 Drive ________________ the trees. It's on the right.
7 It's ________________ the derrick.
8 It's ________________ the pumpjack.
9 It's ________________ the derrick and the pumpjack.

2 Look at the map. You are at A. Read these directions for the route to the temporary safe refuge (TSR) on an oil platform. Draw the route on the map.

Go straight ahead. Take the first turning on your left and go straight ahead. Take the second turning on your right. Go straight until you come to a T-junction. Turn left. The TSR is on your right.

Escape routes on an oil platform



Writing

3 Use the map above. Write directions for the route from B to the temporary safe refuge.

Language

supervisors / supervisor's / supervisors'

We add an *s* to make the noun plural.	*We have two supervisors here, one for safety and one for technical control.*
's and **s'** are used to show possession. The position of the apostrophe (') shows whether the noun is singular or plural.	*This is the supervisor's office. (one supervisor)* *This is the supervisors' office. (two or more supervisors)*

4 Draw a map of your workplace. Practise directions in pairs. Say something about the places on your map.

You must wear PPE in this area.
This is the supervisor's office.
Leave your phone at reception.
You mustn't smoke here.

Health and safety: Helicopters

Listening 1 ▶ 36 Look at this picture. Then listen to and read the safety instructions. Complete the instructions.

Survival suit

Here are some instructions. First of all, remove any loose items which might blow away. Always approach a (1) helicopter where the pilot can see you. The tail (2) rotor is dangerous. Get in the helicopter only when the (3) pilot signals you to do so. Fasten your seatbelt as soon as you are seated and put on your ear protection. This flight is over water so you must wear a survival suit and a (4) lifejacket .

Reading 2 Read the text again and answer these questions.

1 Who is in charge of the helicopter? The pilot is incharge of the helicopter.
2 What do you put on your ears? I must to put the ear protection on my ears.
3 What must you remove? I must to remove any loose items which might blow away.
4 What do you do when the pilot signals you? I must get in the helicoter when the pilot signals me.
5 What do you do with the seatbelt? I must fasten the seatbelt as soon as i am seated.
6 What must you wear for a flight over water? For a flight over water i must wear a survival suit and a lifejacket

3 Put the sentences in the correct order.

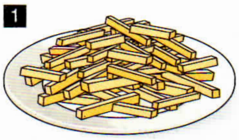
a) Remove loose items. 2
b) Fasten your seatbelt. 6
c) Get in the helicopter. 5
d) Approach where the pilot can see you. 3
e) Put on ear protection. 7
f) Put on a survival suit and lifejacket. 1
g) Wait for the pilot's signal. 4

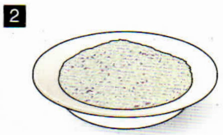
Speaking 4 Work in pairs. Student A turn to page 68. Student B turn to page 79.

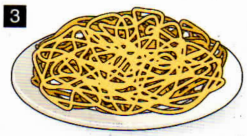
Off-shift in the canteen

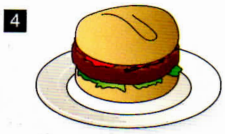
Vocabulary **1** Match the words in the box to the pictures.

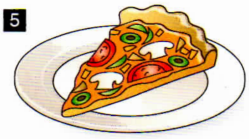
beefburger bread chicken fries pizza
rice soup spaghetti vegetables

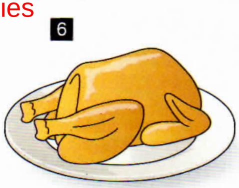
1

fries

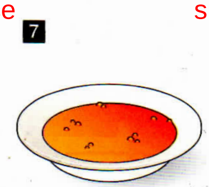
2

rice

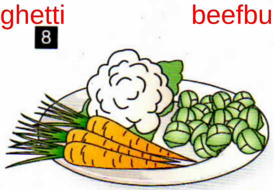
3

spaghetti

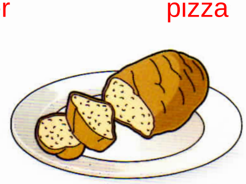
4

beefburger

5

pizza

6

chicken

7

soup

8

vegetables

9

bread

Listening **2** 37 Listen to three oil workers in a canteen. What do they order? How much does it cost?

Food	Drink	Price
Fries	Cola	1
Pizza	A glass of water	7.35
Soup and Beefburger	Orange juice	5.50

3 Listen again and look at the menu. What mistakes does the cashier make?

Food	
chicken soup	$1.50
vegetable soup	$1.50
spaghetti	$6.00
pizza	$7.35
beefburger	$3.00
cheeseburger	$3.50
steak	$9.00
fried egg	$0.50
french fries	$0.50
rice	$0.40
extra mushrooms / onions / cheese	$0.50
bread	$0.20
Drinks	
tea	$0.50
coffee	$0.75
cola	$0.50
orange juice	$0.50
lemonade	$0.50
water	free

vegetarian they doesn't eat meat and products of animals and fish
vegan are vegetarians and doesn't wear products of animals like wool, leather

Language

Asking for and about food

There are different ways to ask for and about food.	***I'd like*** *a beefburger, please.*
	Could I have *some fries, please?*
	What's *that / this?*
	A: ***How about*** *a cup of tea?* *B: That sounds good.*
	A: ***Would you like*** *a plate of spaghetti?* *B: Yes, please.*

Speaking **4** Work in pairs. Student A turn to page 68. Student B turn to page 79.

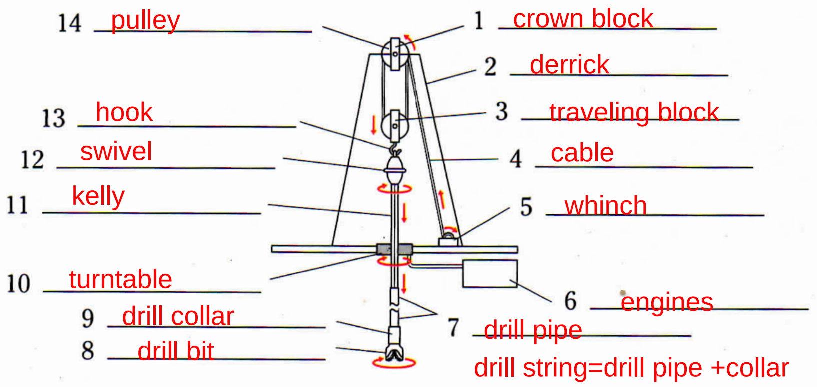
Review

Writing **1** Write down the following.

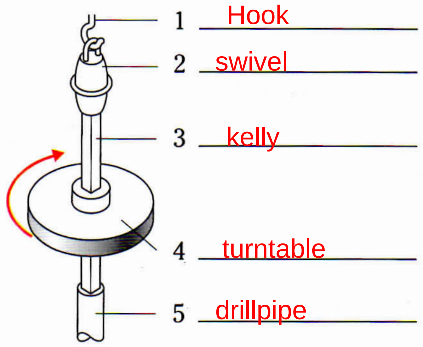
1 three tools Drill, pliers, hammer
2 three things to wear in a helicopter Ear proteccion, lifejacket, survival suit.
3 three things to eat soup, fries, beefburger, spaghetti
4 three things to drink water, orange juice, cola, coffee, lemonade

2 Label these diagrams. Then write five sentences about them. Use the words in the box to help you.

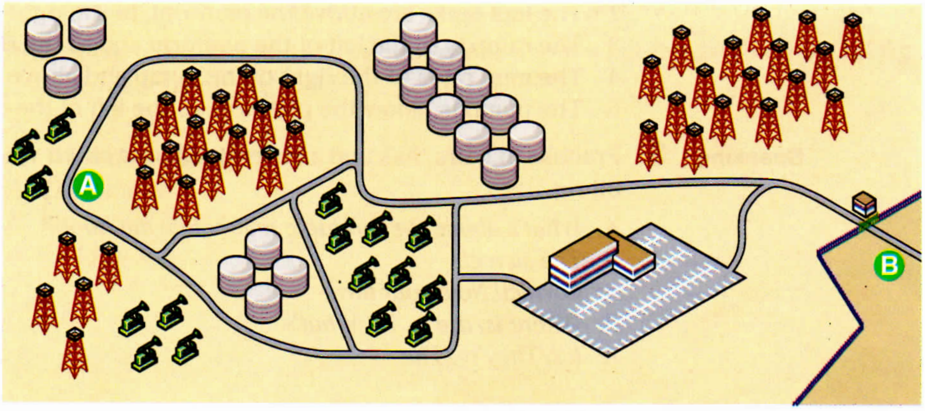
turn | rotate | hang from | connect | go through | go from


14 pulley
1 crown block
2 derrick
13 hook
3 traveling block
12 swivel
4 cable
11 kelly
5 whinch
10 turntable
6 engines
9 drill collar
7 drill pipe
8 drill bit

drill string=drill pipe +collar


1 Hook
2 swivel
3 kelly
4 turntable
5 drillpipe

3 Write down instructions to get from A to B.



5

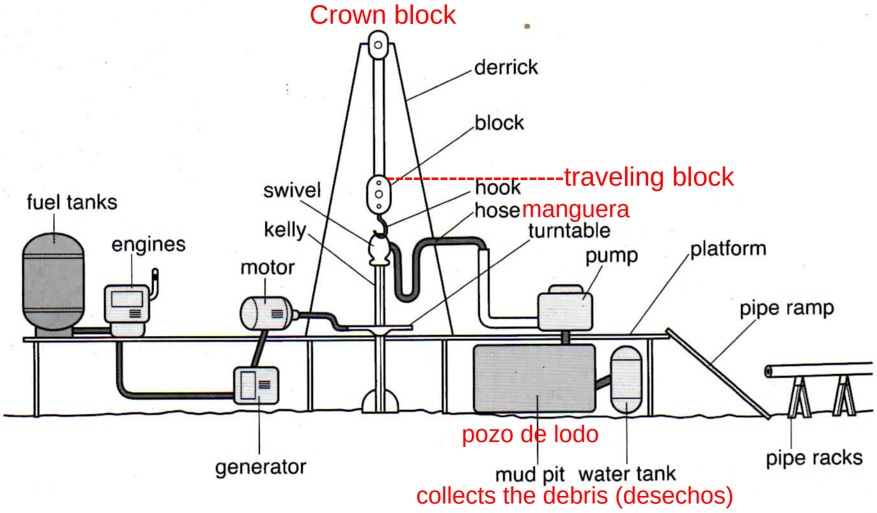
Working offshore

- Describe oil rig systems
- Talk about dimensions
- Explain what a medic does
- Talk about basic medical problems
- Describe the crew quarters on an oil rig

Oil rig systems

Vocabulary **1** Look at the diagram. Are these statements true (T) or false (F)?

1 The turntable is on the platform at the bottom of the derrick. [✓ T]/F
2 The block and the hook are at the top of the derrick. T/[✓ F]
3 The engines are below the platform. T/[✓ F]
4 The pipe racks are to the left of the platform. T/[✓ F]
5 The motor is above the generator. [✓ T]/F
6 The water tank is to the right of the mud pit below the platform. [✓ T]/F


Crown block
derrick
block
traveling block
hook
hose manguera
turntable
swivel
kelly
fuel tanks
engines
motor
pump
platform
pipe ramp
generator
pozo de lodo
mud pit
water tank
collects the debris (desechos)
pipe racks

2 Underline all the mistakes in these statements. Correct the mistakes.

1 The motor is below the platform, to the left of the engines. *above*
2 The fuel tanks are above the platform, to the right of the engines. left
3 The ramp is to the left of the platform and to the right of the racks. right/left
4 The mud pit is to the right of the pump and above the water tank. below/left
5 The pump is below the platform, to the left of the derrick. above/right

Speaking **3** Practise in pairs. Ask and answer questions about where things are on the oil rig.

A: What's above the turntable and below the hook?
B: The swivel.
A: Correct! Now your turn.
B: Where is/are … ? / What's … ?
A: It's/They're/The … .

What does it do?

Listening **1** 38 Listen to and read the conversation.

A: What's this?
B: It's a derrick.
A: What does it do?
B: It supports the block.
A: Did you say the block?
B: Yes, that's correct.

2 39 Listen to and read the conversation.

A: Does the motor turn the turntable?
B: Yes, it does.
A: And the engines? Do the engines provide the power?
B: Yes, they do.
A: Does the pump drive the generator?
B: No, it doesn't. The engines drive the generator.
A: Do the tanks on the left hold water?
B: No, they don't. They hold fuel.

3 40 Complete the sentences. Then listen to check.

1 The *engines* provide the power.
2 The fuel tanks hold fuel for the engines.
3 The engines drive the generator.
4 The generator provides electrical power for the motors and the pump.
5 The pump sucks mud from the mud pit.
6 The motor turns the turntable.
7 The water tank holds water for the mud pit.
8 The mud pit contains the drilling fluid.
9 The pipe racks support the drill pipes.

Speaking **4** Practise in pairs. Ask and answer questions about what things do on the oil rig. Use the diagram on page 36.

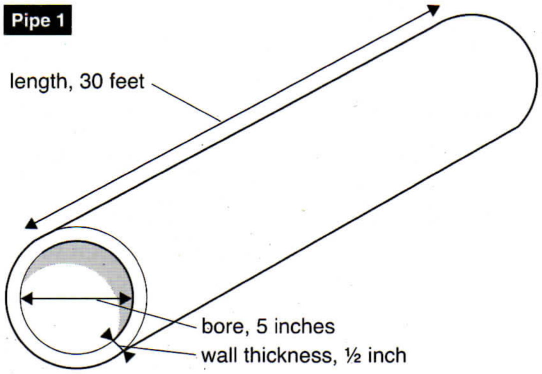
A: What's this?
B: What does it do?
A: Does the … ?
B: Do the … ?
A: Did you say …?

Dimensions

Listening

1 41 Listen to and read the conversation.

A: How long is this pipe?
B: It's 30 feet long.
A: Did you say 30 feet?
B: Yes, that's correct.
A: What's that in metres?
B: About 10 metres.
A: OK. What's the diameter?
B: The outside diameter is 6 inches. The wall thickness is half an inch. And, before you ask, an inch is about two and a half centimetres. So that's about 15 centimetres outside diameter and a wall thickness of just over a centimetre.
A: So the bore is about 12.5 centimetres.
B: That's right.
A: OK, thank you.
B: You're welcome.



2 42 Listen and complete the sentences.

1 1 foot is equal to ______ inches.
2 1 inch is about ______ centimetres.
3 1 metre is about ______ feet.

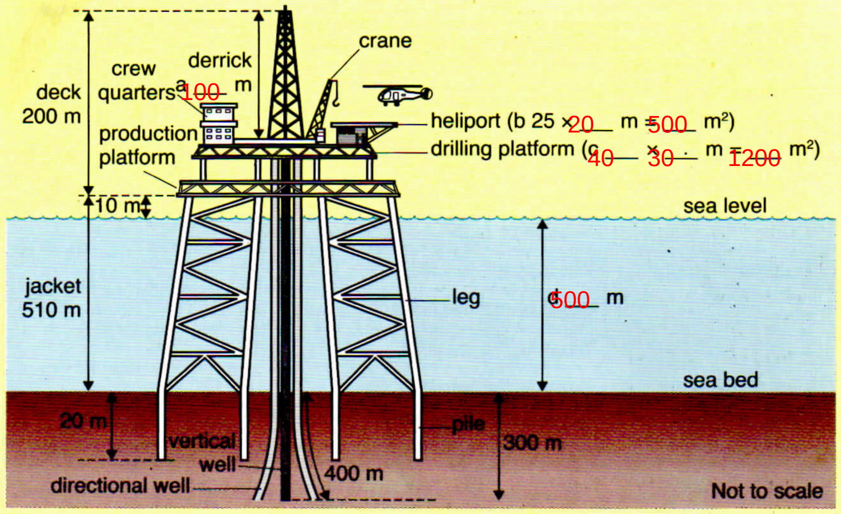
Speaking

3 Work in pairs. Student A turn to page 68. Student B turn to page 79.

Pipe	Length	Outside diameter	Wall thickness	Bore
2				
3				

Offshore fixed platforms

Reading **1** Read the text and complete the dimensions on the diagram.


deck
200 m
crew
quarters
derrick
a 100 m
crane
heliport (b 25 × 20 m = 500 m²)
drilling platform (c 40 × 30 m = 1200 m²)
production
platform
10 m
sea level
jacket
510 m
leg
d 500 m
sea bed
20 m
vertical
well
directional well
400 m
pile
300 m
Not to scale

This offshore fixed platform is 710 metres high from the top of the derrick to the sea bed. The derrick is 100 metres high. The sea is 500 metres deep. The piles go 20 metres into the sea bed. The heliport on the right has an area of 500 square metres. The drilling platform is 40 metres long and 30 metres wide, so it has an area of 1200 square metres.

2 Write down the following information.

1 The height of the jacket above sea level The high of the jacket above the sea is 10 meters
2 The height of the deck, including the derrick, above the jacket The high of the deck is 200 m
3 The number of platforms There are 2 platforms
4 The height of the derrick above the drilling platform 100
5 The depth of the piles below the sea bed 20
6 The depth of the vertical well below the sea bed 300
7 The length of the directional well below the sea bed 400
8 The area of the drilling platform 1200 square meters

Writing **3** Write the words in the correct order to make sentences.

1 pipeline kilometres is long The five .The pipeline is 5 km long.
2 five hundred is The deep sea metres .The sea is 500 m deep.
3 wide The metres is heliport twenty-five . The heliport is 25 m wide.
4 metres The drilling platform the forty length of is . The lenght of the drilling platform is forty m.

4 Use these words to make sentences.

1 vertical well / deep
2 derrick / high
3 heliport / long / and / wide
4 piles / deep
5 drilling platform / long

Language

Dimensions

	Adjective	Noun
We can use a noun or the related adjective to talk about dimensions.	*The pipe is 20 metres **long**.*	*The **length** of the pipe is 20 metres.*
	*The wall is half an inch **thick**.*	*The **thickness** of the wall is half an inch.*
	*The sea is 500 metres **deep**.*	*The **depth** of the sea is 500 metres.*
	*The heliport is 25 metres **wide**.*	*The **width** of the heliport is 25 metres.*
	*The derrick is 100 metres **high**.*	*The **height** of the derrick is 100 metres.*

Speaking **5** Practise in pairs. Use the diagram to talk about the dimensions of the platform.

Asking for information

Language

Asking about dimensions

We use *How* + adjective + *is it?* to ask about dimensions using the adjective form of the word.	***How** long is it?*
	***How** thick is it?*
	***How** deep is it?*
	***How** wide is it?*
	***How** high is it?*
We use *What is the* + noun? to ask about dimensions using the noun form of the word.	***What is** the length?*
	***What is** the thickness?*
	***What is** the depth?*
	***What is** the width?*
	***What is** the height?*

1 Ask and answer questions about the offshore fixed platform. Use the words given and the diagram on page 39.

1 high / the top of the derrick / above sea level
2 area / heliport
3 deep / sea at the platform
4 width / drilling platform
5 height / jacket / above the sea bed

Language

many / much

We use ***many*** with nouns we can count.	*How **many** barrels of oil does it produce?*
	*How **many** people are there in a crew?*
We use ***much*** with nouns we cannot count.	*How **much** oil do they have?*
	*How **much** fuel is in the tank?*

2 43 Complete this conversation using *much* and *many*. Listen to check.

A: Tell me about the platform. How (1) much______________ oil does it produce?
B: It produces about 21,000 barrels per day.
A: How (2) ________________ tonnes is that per year?
B: Let me see. That's over one million tonnes per year.
A: How (3) ________________ oil workers are there on the platform?
B: I think there are about 120.
A: How (4) ________________ money do the oil workers earn?
B: They earn quite a lot because they have to work away from home.

Speaking **3** Practise in pairs. Ask and answer more questions about the offshore fixed platform.

Health and safety: In the sick bay

Reading **1** Read the text. What do medics do? Make a list.

Every rig has a doctor or a medic. Their job is to look after any medical problems on the rig. Normally they treat patients in the sick bay. Sometimes they send patients to hospital by helicopter. Medical staff can have other jobs, too. They check water supplies. They inspect food. They order medical supplies. They also train workers in first aid.

quidar
seguimiento
tratan
enfermeria
suministros
entrena
forma para primeros auxilios

Listening **2** 44 Listen to the conversations. What three questions does the medic ask?

3 44 Listen again. Write down the six medical problems you hear.

1 *cough*
2 sun burn
3 head hurts headache
4 I hurt my back .
5 I've got something in my eye .
6 I hurt my hand .

What's the problem?
What's the matter?
What's up?

breathtaking-corta la respirasion
breath(n)-respiración
breathe(vb)-respirar
eyedrops-gotas para ojos
blood(n)-sangre
bleed(vb)-sangrar
tooth cavity-carrie
itchy-irritada, que pica (piel)

4 44 Listen again. Write down the solution.

1 cough *medicine*
2 sun cream (sunscreen protector solar)
3 pils/tablets/painkillers
4 wait in the other room
5 eye drops
6 X-Ray

Language

have / have got

We use ***have got*** instead of ***have*** in informal British English. American English does not use ***have got***.	*I **have** a headache.*	*I**'ve got** a headache.*
	*He **has** sunburn.*	*He**'s got** sunburn.*
	*We both **have** this cough.*	*We**'ve** both **got** this cough.*

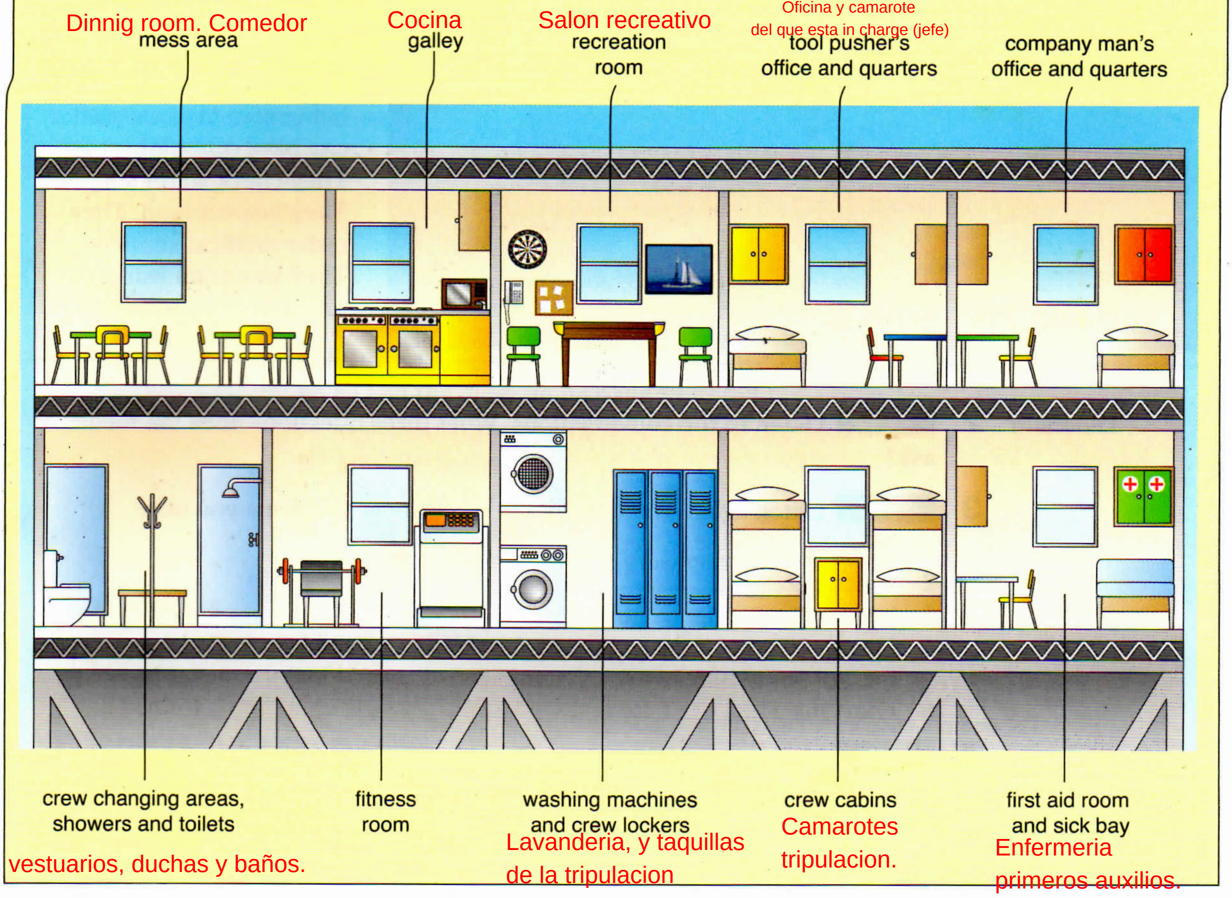
5 Practise in pairs. One of you is a medic, the other a patient. Make similar conversations to those you heard.

A: What's the matter / problem?
B: I have / I've got ... .

Crew quarters

Reading **1** Read the text.

The crew quarters are on two levels. The upper level houses the galley, the mess area, the recreation room, the tool pusher's office and quarters and the company man's office and quarters. The lower level has the crew changing areas, showers and toilets, a fitness room, washing machines, crew lockers, crew cabins and the first aid room and sick bay.



Dinnig room. Comedor
mess area
Cocina
galley
Salon recreativo
recreation room
Oficina y camarote del que esta in charge (jefe)
tool pusher's office and quarters
company man's office and quarters
crew changing areas, showers and toilets
vestuarios, duchas y baños.
fitness room
washing machines and crew lockers
Lavanderia, y taquillas de la tripulacion
crew cabins
Camarotes tripulacion.
first aid room and sick bay
Enfermeria primeros auxilios.

filthy-jegos

Listening **2** 45 Complete the sentences. Then listen to check.

1 OK, the *recreation* room. There's a TV, a snooker table, a telephone and some books. There's also a notice board.

2 The mess area? Just tables and chairs and a window to the galley.

3 The galley? It's a kitchen. It's where we cook our food.

4 The recreation* room? We have a running machine and some other sports equipment.

5 The washing machines are on all the time. We get very dirty in this job.

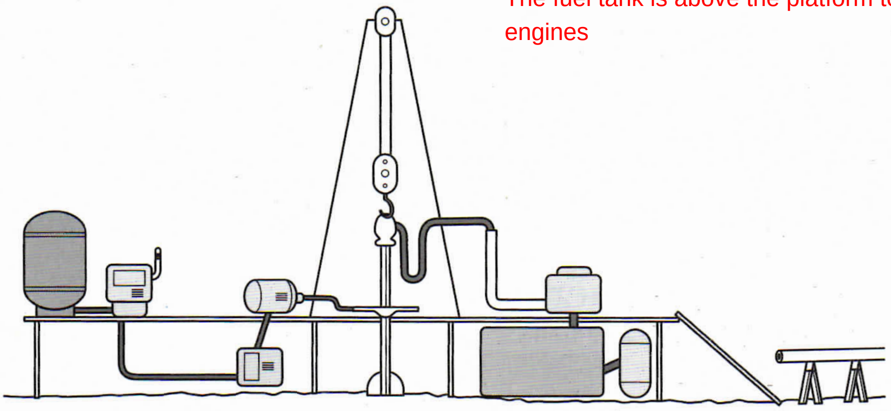
6 Everyone has a locker. That's where we keep our PPE.

Speaking **3** Draw a plan of the crew quarters on an oil rig. Draw two levels. Explain your plan to a partner but do not show your partner your drawing. Your partner draws your plan.

Review

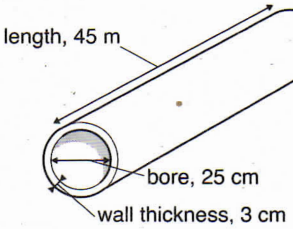
Writing **1** Write five sentences about this diagram.

The motor is above the platform, to the left of the engins. The fuel tank is above the platform to the top left of the engines



Example: The engines provide the power. They are to the right of the fuel tanks.

2 Write three sentences to describe this pipe.



This pipe is 45 metres …

3 Complete this text.

A typical offshore fixed platform is 710 metres high from the top of the derrick to the (1) sea bed ____________ . The derrick is 100 metres high. The sea is 500 metres (2) ______ deep ______ . The piles go 20 metres into the sea (3) bed ____________ . The heliport on the right has an (4) ______ area ______ of 500 square metres. The drilling platform is 40 metres long and 30 metres (5) wide ____________ , so it has an area of 1200 square metres.

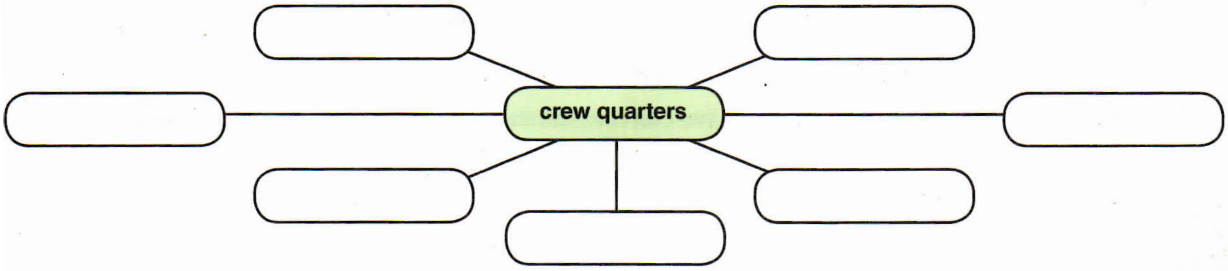
4 Complete these sentences with *much* or *many*.

1 How ____________ people work on the rig?
2 How ____________ oil does the rig produce?
3 How ____________ barrels of oil does the rig produce?
4 How ____________ tables are there in the galley?
5 How ____________ money do the oil workers earn?

5 What does a medic on an oil rig do? Write three sentences.

Example: A medic treats patients.

6 Write seven words to complete the word spider.



6 Refining

- Talk about refineries
- Talk about refinery jobs
- Use colours
- Talk about days, months and dates
- Talk about emergency procedures
- Talk about the weather

Refineries

DANGER
HIGH VOLTAGE
KEEP OUT

Substation

Hazmat area

Main gate

Reading **1** Read this text. hazmat hazardous materials =dangerous=materiales peligrosos

hot (adj)-caliente
heat (n)-calor
cold(adj)=frio
cool(adj)=fresquito
collness(n)=frescura

> Refineries change crude oil into different petroleum products. There are three main processes. First the crude oil is separated into different components. Then the components are converted using heat and pressure. Lastly, chemicals are added to make the final products. The control room is the centre of the refinery. Electrical power is provided by the substation. Hazardous materials are stored in the hazmat area.

Listening **2** 46 Listen to six visitors at the main gate to a refinery. Complete the table.

Visitor	Time	Name of visitor	Reason for visit	Where
1		*Hans Clements*	*Meeting with Dr Schmidt*	
2		*Abdullah Al-Rakhis*		*Hazmat area*
3		*Sally Digby*	*New employee*	
4		*Marisa Codreanu and Dennis Poljakovic*		*Separation area*
5			*Delivery of spare parts*	*Control room*
6		*Connie Grieve*		*Substation*

Speaking **3** Practise in pairs. Have conversations like the ones you heard. Use these phrases and sentences.

Good morning/afternoon.
Could I see your ID, please?
Thank you.
I'm here to see … .
One moment, please.

Parts of a refinery

Vocabulary **1** Match the words 1–13 with their descriptions a–m.

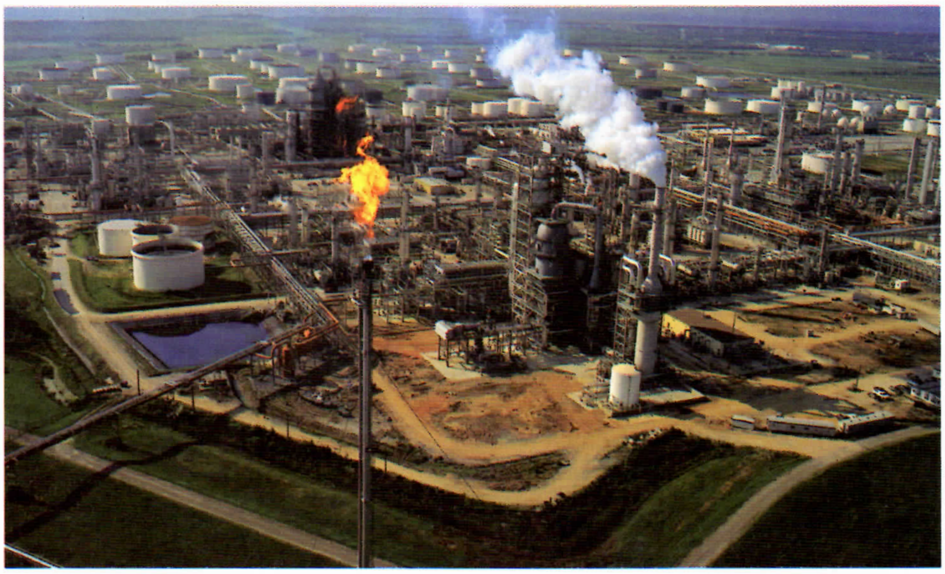
1 substation
2 conversion area m
3 tank farm j
4 canteen h
5 main gate c
6 administration building i
7 separation area k
8 river a
9 treatment area l
10 labs g
11 parking area d
12 hazardous materials area f
13 control room b

a) water supply for chemical processes
b) the centre of the refinery
c) control of access
d) space for cars
e) electricity supply
f) store of dangerous materials
g) where chemicals are added to make products ready for market
h) a place to get food
i) offices
j) storage tanks for different petroleum products
k) the location of the distillation columns
l) the location of the labs
m) where heat and pressure are used to change the components

Listening **2** 47 Listen to the information about a refinery. Answer these questions.

1 How big is the refinery?
2 How many gates does it have?
3 How many parking areas does it have?
4 What is the substation for?
5 What is the river for?
6 Where are the distillation columns?
7 What are the buildings in the treatment area?

Vocabulary **3** Look at the picture. Which parts of the refinery can you see?



Speaking **4** Work in pairs. Draw a map of a refinery. Explain the different areas to a visitor.

This is the admin building.
These are our offices.
This is the substation.
This provides power for the refinery.

Refinery jobs

Reading **1** Read the texts. Match the jobs in the box to the descriptions.

safety instructor ~~control room operator~~ maintenance supervisor
equipos dinamicos= pump system operator lab technician

1 My job is to work in the refinery control room. I monitor equipment and troubleshoot problems. *control room operator*
2 I'm responsible for all the pump systems in the refinery. I use different instruments in my work, including pressure gauges and flowmeters. Pump system operator
3 I work in a lab. My job is to add chemicals to the products and carry out =perform tests. I write a lot of reports. Lab techniciaa.
4 My job is to co-ordinate and supervise a team of engineers and technicians. Together we inspect and maintain refinery equipment and piping systems. Sometimes we repair equipment. Maintenance supervise.
5 I train all the employees in everything to do with fire safety. This includes hazmat training as well as emergency procedures. Safety instructor.
also prosidiurs

2 Find the odd one out. Explain why.

1 employee, engineer, equipment, technician, supervisor
2 pressure gauge, piping systems, pump systems, flowmeters, training
3 fire safety, write reports, carry out tests, monitor equipment, train employees

3 Underline the following word partnerships in the descriptions above.

a) refinery equipment
b) fire safety
c) emergency procedures
d) piping systems
e) hazmat training
f) pressure gauges

4 Find verbs in the texts above which go with these nouns.

1 employees *co-ordinate*
2 equipment
3 reports
4 problems
5 instruments

Speaking **5** Describe a job to a partner. Your partner has to guess the job you are describing.

Printed circuit board

In the control room: PCBs and resistors

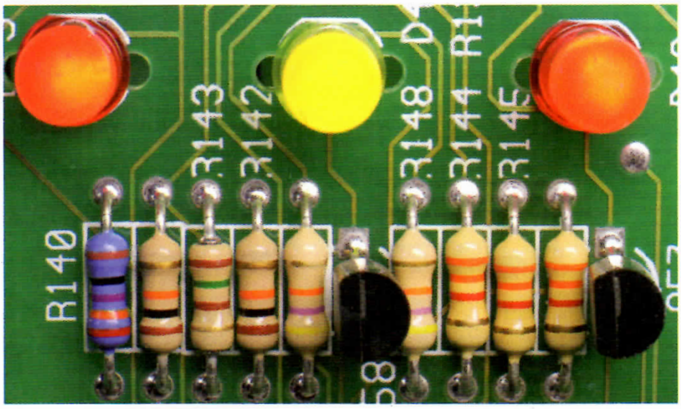
Reading **1** Read this explanation of PCBs.

look after=take care

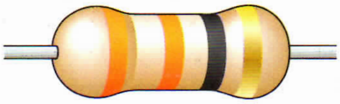
tiny smaller than small

PCBs

Refinery control rooms contain a lot of complex electrical equipment. Technicians look after this equipment. Sometimes technicians repair printed circuit boards, or PCBs.



Look at the resistors on this PCB.



black	0
brown	1
red	2
orange	3
yellow	4
green	5
blue	6
purple	7
grey	8
white	9

The colour bands show the value of the resistor in ohms (Ω). Ten different colours represent the numbers 0 to 9.
The first two bands are the first two digits of the resistance.
The third band is the multiplier.
The multiplier tells you the number of zeroes to add after the first two digits.
The final band is the tolerance.
On the resistor shown above, orange = 3, orange = 3, black = 0, so the resistance is 33 Ω.

2 Answer these questions.

1 What does PCB stand for?
2 What do the colour bands on the resistors show? The value of resistors in ohms
3 What do the first two bands mean? The first two digids of resistants
4 What does the third band tell you? Number of zeros after the two digits
5 What is the fourth band for? The tolerance

Speaking **3** Work in pairs. Tell your partner the colours of the first three bands of a resistor. They work out the resistance.

A: My colours are purple, then green, then black.
B: OK, so that's 75 Ω.
A: Correct! Now your turn.
B: OK. My colours are yellow, purple and red.
A: That's 4700 Ω or 4.7 kΩ.

Dates

Listening **1** 48 Listen to two short conversations. Tick the days you hear.

Monday ☐
Tuesday ☐
Wednesday ☐
Thursday ☐
Friday ☐
Saturday ☐
Sunday ☐

2 49 Listen and repeat the months of the year. Mark the stress.

January
February
March
April
May
June
July
August
September
October
November
December

Writing **3** What comes next?

1 Monday, Tuesday, Wednesday, Thursday
2 Saturday, Monday, Wednesday, ________
3 January, March, May, ________
4 December, November, October, ________
5 March, June, September, ________

Language

Dates

We say *the first of January*, *the second of February*, *the third of March*, etc. or *January the first*.

1st = first
2nd = second
3rd = third
4th = fourth
5th = fifth
6th = sixth
7th = seventh
8th = eighth
9th = ninth
10th = tenth
11th = eleventh
12th = twelfth
13th = thirteenth
14th = fourteenth
15th = fifteenth
16th = sixteenth
17th = seventeenth
18th = eighteenth
19th = nineteenth
20th = twentieth
21st = twenty-first
22nd = twenty-second
23rd = twenty-third
24th = twenty-fourth
25th = twenty-fifth
26th = twenty-sixth
27th = twenty-seventh
28th = twenty-eighth
29th = twenty-ninth
30th = thirtieth
31st = thirty-first

4 Dictate days and months to your partner.

5 Practise in pairs. Ask and answer questions. Find a new partner and repeat.

What day is it today/tomorrow?	*It's Tuesday.*
What month is it?	*It's December.*
What's the date today?	*It's the third of February.*
When's your birthday?	*It's on the fourteenth of July.*

Health and safety: Emergency procedures

Reading **1** Read these emergency procedures. Why do you walk upwind?

Emergency procedures

1 Raise the alarm.
2 Contact the emergency services.
3 Switch off all machinery.
punto de encuentro
4 Proceed upwind to an assembly area.
5 Check that all your crew or department are present or accounted for.
6 Report to the senior person present.

upwind-en la dirección del viento=barlovento

Listening **2** 50 Listen to a supervisor talking about emergency procedures. Does he forget anything?

3 Match these actions to the procedures above.

a) telephone
b) talk
c) break glass 1
d) push stop button
e) walk
f) count heads

4 Match these sentences to the procedures above.

a) I would like to report a fire in the administration building.
b) My crew are all present or accounted for.
c) Does anyone know where John is?
d) Follow me.
e) Turn off the generator.
f) Fire! Fire! Fire! 1

Speaking **5** Work in pairs. Student A turn to page 68. Student B turn to page 79.

Talking about the weather

Listening **1** ▶ 51 Listen and read.

1 It's raining.
2 It's windy.
3 It's a storm. Listen to the thunder.

2 ▶ 52 Listen and complete the table.

–20° C	**0° C**	**20° C**	**40° C**
It's very ______ today.	It's freezing.	It's a nice day.	It's very hot today.
It's twenty below and …	It's ______ degrees.	It's 20 degrees.	It's ______ degrees.
… it's snowing.	There's ice on the roads.	No ______ today.	It's very windy.

Speaking **3** Practise in pairs. Discuss the weather report with your partner.

Place	**Today**	**Tomorrow**
Aberdeen	–10° C 🌨	3° C 🌧
Los Angeles	32° C ☀	33° C ☀
Moscow	–20° C 🌨	–23° C 🌨
Rio de Janeiro	28° C ⛅	25° C ☀
Riyadh	45° C ☀	45° C ☀
Sydney	18° C ⛅	21° C ☀

A: What's the weather like in Aberdeen today?
B: Freezing. It's minus 10.
A: And tomorrow?
B: It's going to be 3 degrees and raining.
A: What about Riyadh?
B: It's hot. 45 degrees.
A: What's that in Fahrenheit?
B: A hundred and thirteen degrees.

Celsius	**Fahrenheit**
–30	–22
–25	–13
–20	–4
–15	5
–10	14
–5	23
0	32
5	41
10	50
15	59
20	68
25	77
30	86
35	95
40	104
45	113

Change the crude oit into petroleum products. First the crude oil is separated into different components. Then the components are converted using heat and pressure. Lastly, chemicals are added to make the final products.

Review

Writing **1** What does a refinery do? Write three sentences.

2 Look at the audioscript for track 47 on page 75. Write questions to get these answers.

1 It's nearly 3 km long and 1 km wide.
Example: How big is the refinery? Rifaineri
2 Three. How many main processes are there in the refinery?
3 Electrical power. What does the substation provide? What is provided by the substation?
4 From the river. Where does the water supply for chemical process come from?
5 In the separation area. Where are the distillations columns located?

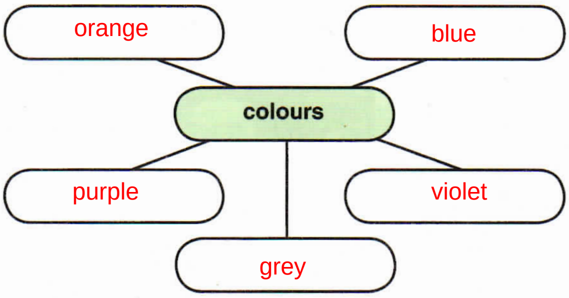
3 Write a sentence about what each of these people do.

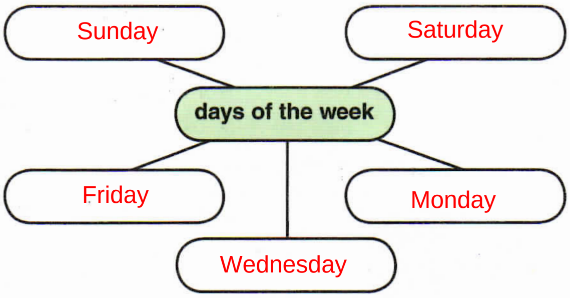
1 control room operator Monitors equipment and troubleshoots problems.
2 safety instructor Trains all the employees whit everything to do with safety
3 maintenance supervisor Inspects and maintains the refinery equipment and piping systems.
4 pump system operator Inspects pump systems in the refinery
5 lab technician Adds chemicals to the products and carries out tests, also writes reports

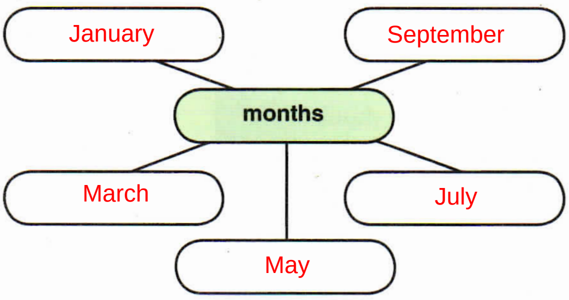
4 Complete the emergency procedures for a refinery.

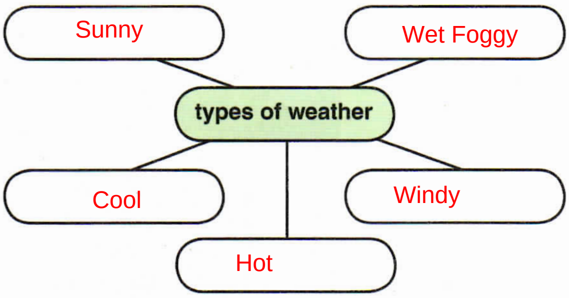
1 Raise the alarm.
2 Contact the emergency services.
3 Switch of oll machinery.
4 Proceed upwind to an assembly area.
5 Check that all your crew or department are present or accounted for.
6 Report to the senior person present.

5 Complete each of these word spiders.


colours
orange
blue
purple
violet
grey


days of the week
Sunday
Saturday
Friday
Monday
Wednesday


months
January
September
March
July
May


types of weather
Sunny
Wet Foggy
Cool
Windy
Hot

7 Storage

- Talk about petroleum products
- Describe storage facilities
- Explain how to operate a fire extinguisher
- Talk about past incidents
- Request items from the storeroom

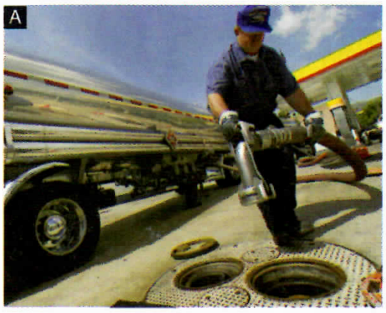
Petroleum products

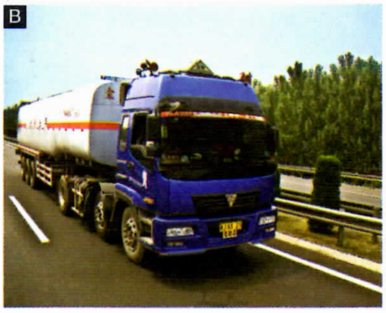
Listening **1** 53 Listen to the descriptions of five different oil depots. As you listen, tick the petroleum products you hear.

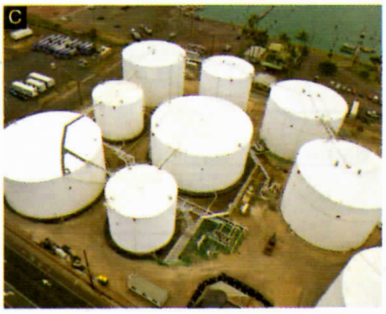
1 asphalt ☑
2 diesel fuels ☑
3 jet fuel ☐
4 kerosene ☑
5 gasoline ☐
6 fuel oils ☑
7 petrochemicals (feedstock) ☑
8 paraffin wax ☐
9 automotive and industrial lubricants ☑
10 liquefied petroleum gas ☑
11 propane ☑
12 butane ☑

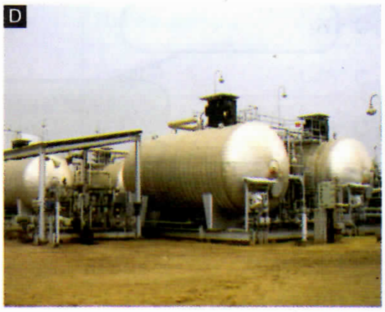
Vocabulary **2** Match the words to the pictures.

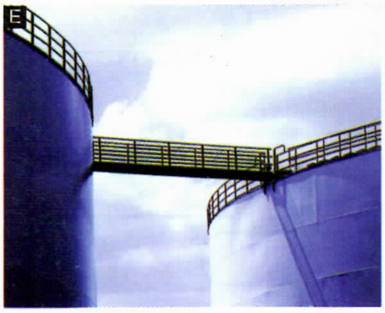
1 catwalk *E* pasarela
2 tank farm C
3 bullet tank D tanque orizontal
4 underground tank A
5 road tanker B











3 You have one minute. Close your book. Write down as many petroleum products as you can. Compare your list with others in the class.

Properties

Reading **1** Complete the text with the headings in the box.

Plastics Jet fuel Synthetic rubber Petrol

Petroleum products

1 Petrol

Also called gasoline, this is a liquid fuel for vehicles on land and sea. It ignites easily in engines. It remains liquid at normal temperatures.

2 Jet fuel

This is a liquid fuel for aircraft and rockets. It remains liquid at very low temperatures.

3 Plastics

do not rust-no se oxida

Also called polymers, these are usually light and strong and do not rust. They can be made into different shapes. There are two types.

- Thermoplastics: When you heat thermoplastics, they melt and you can shape them. You can reheat them and melt them again and again. This means that you can recycle them. Water bottles are made of thermoplastics.
- Thermosets: You cannot re-melt thermosets. They are heat-resistant. Engine parts are sometimes made of thermosets.

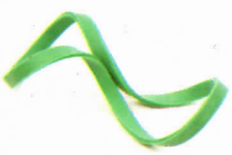
Synthetic fibres are made from plastics. Nylon is one example. Synthetic fibres are often water-resistant and do not stretch or break when you pull them. They are used to make ropes.Cuerdas

4 Synthetic rubber

This is a heat-resistant and corrosion-resistant material. Oil and petrol cannot damage it. For this reason, it is often used to make fuel hoses.mangueras

2 Match the sentences to the pictures.

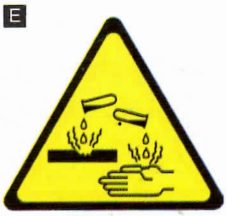
1 Metal rusts. B
2 Rubber stretches.
3 Warning: corrosive materials.
4 This jacket is water-resistant.
5 Ice melts at room temperature.

A


B

C

D

E


3 Complete the sentences with words from the text above.

1 Fire hoses are made from rubber.
2 Jet fuel is used in aircraft.
3 Car fuel is called gasoline or petrol.
4 Nylon is a synthetic fibre.
5 Water bottles are made of termoplastic.

4 Match the products 1–5 with their descriptions a–e.

1 petrol	a) cannot be re-melted
2 jet fuel C	b) corrosion-resistant
3 thermosets A	c) remains liquid at low temperatures
4 synthetic fibres D	d) do not stretch when pulled
5 synthetic rubber B	e) ignites easily

Speaking **5** Practise in pairs. Describe a petroleum product but do not name it. Your partner has to guess what it is.

A: This product is black. You drive on it.
B: Is it a tyre?
A: No. It's in the road.
B: Is it asphalt?
A: Yes.

Describing storage facilities

Reading **1** Read the text. Are these sentences true (T) or false (F)? Correct the false statements.

1 The smallest tank we have is 34,000 gallons. T/[✓ F] largest
2 The longest bullet tank is 18 metres. T/F
3 The pressure in the bullet tanks is lower than in the fuel oil tanks. T/F
4 The nearest rig is 45 kilometres away. T/F

> This facility is **bigger** than our others. In fact, it is the **biggest** facility we have. These tanks are for kerosene. They are much **smaller** than the tanks we use for the other fuel oils. The **largest** tank we have is 34,000 gallons. Here it is on the right. Here you can see the bullet tanks, which we use for LPG. The **longest** we have is 18 metres. The **shortest** is 6 metres. The pressure in the LPG tanks is normally around 5 bar. This is much **higher** than in the fuel oil tanks. Propane and butane are both **heavier** than air, so leaks can be a problem. The gas does not go away.
> The refinery is not **far**, only 3 kilometres from here. The **closest** rig is 35 kilometres away. The **furthest** is 150 kilometres.

Language

Comparing things

We use an **adjective** to describe a noun.	*This is a **big** facility.*
We use a **comparative** to compare two things.	*This facility is **bigger** than our others.*
We use a **superlative** to compare three or more things.	*This is the **biggest** facility we have.*

Short adjectives	close great	closer greater	the closest the greatest
Adjectives ending in -*y*	heavy easy	heavier easier	the heaviest the easiest
Long adjectives	important	more/less important	the most/least important
Irregular adjectives	good bad far	better worse further	the best the worst the furthest

2 Read the information about the three storage facilities. Then complete the sentences.

	Al Gabar Oil Depot	Yakunst Tank Farm	Hangdong Terminal
Built	1962	1998	2001
Distance to refinery	3 km	120 km	27 km
Capacity	33 million litres	32 million litres	54 million litres
Number of tanks	27	44	60

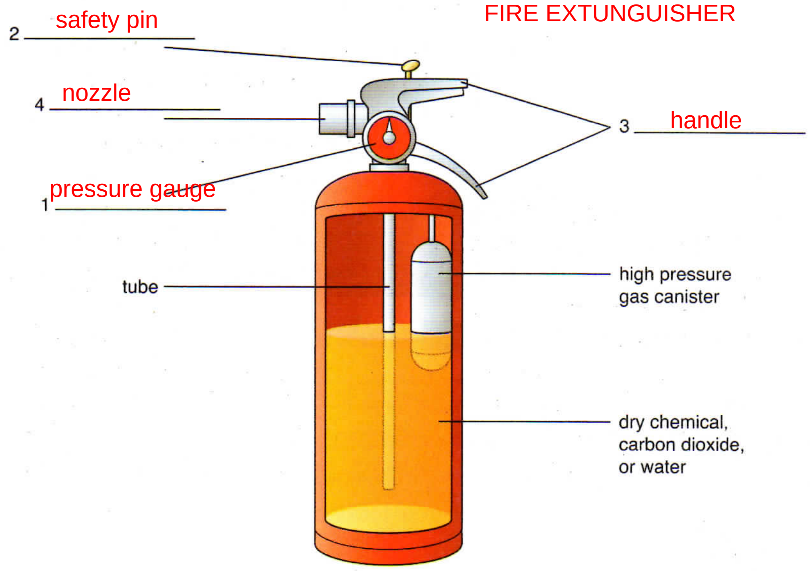
1 Al Gabar is older (old) than Yakunst.
2 Al Gabar is ______ (old) depot in the table.
3 Yakunst is ______ (far) from a refinery.
4 Al Gabar is ______ (close) to a refinery than Hangdong.
5 Hangdong has ______ (large) storage capacity.
6 Hangdong has ______ (great) number of tanks.

Writing **3** Write five more sentences comparing the three facilities.

Speaking **4** Compare your sentences with others in the class.

Health and safety: Fire safety

Listening **1** 54 Listen to the description and label the diagram of a fire extinguisher.


FIRE EXTUNGUISHER
2 safety pin
4 nozzle
3 handle
1 pressure gauge
tube
high pressure gas canister
dry chemical, carbon dioxide, or water

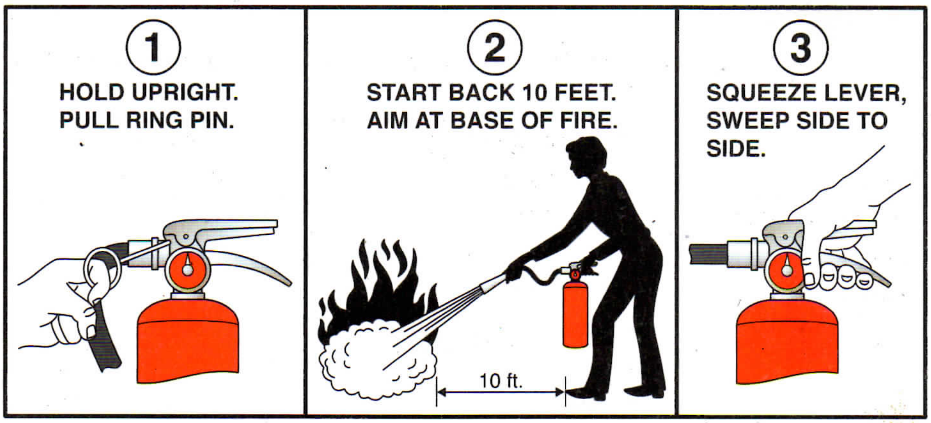
2 Correct these sentences.

1 The fire extinguisher contains dry chemical, carbon dioxide and water. or
2 The safety pin is under the pressure gauge. above
3 The nozzle is on the right. left
4 The tube is outside the container. inside
5 The gas canister is above the tube. under

3 Complete this sentence.

When you squeeze the handle, …

4 Look at the chart. Underline the words for parts of a fire extinguisher. Match them to the labels in the diagram above.


1
HOLD UPRIGHT. PULL RING PIN.
2
START BACK 10 FEET. AIM AT BASE OF FIRE.
10 ft.
3
SQUEEZE LEVER, SWEEP SIDE TO SIDE.

Speaking **5** Practise in pairs. Take turns to explain how to use a fire extinguisher. Use the words in the box.

pull aim squeeze sweep

Incident reports

Listening 1 55 Listen to four conversations. Complete the incident report forms.

Incident 1

Date: *10th January* Time: *15:00*
Location: *Tank number* ______
Description of incident: *Fire* ______
Possible cause: *Faulty pressure* ______
Action taken: *John Smith called the* ______ *team*

Incident 2

Date: *14th March* Time: ______
Location: ______
Description of incident: ______
Possible cause: ______
Action taken: ______

Incident 3

Date: *2nd August* Time: *20:00*
Location: ______
Description of incident: ______
Possible cause: ______
Action taken: ______

Incident 4

Date: *31st October* Time: ______
Location: ______
Description of incident: ______
Possible cause: ______
Action taken: ______

Speaking 2 Use the incident report forms to explain the incidents to a partner, but change some of the information. Your partner has to find the change. Then find a new partner and repeat.

Talking about past incidents

1 Here are some questions from the conversations on page 56. Complete the words.

1 What happen________ ?
2 What d________ you do?
3 What caus________ it?
4 How d________ it happen?

Language

Past simple

We use the **past simple** to talk about a completed action in the past.	*I **called**.*
	*He **didn't call**.*
	***Did** you **call**?*

Regular	**Present**	**Past simple**
	call	called
	roll	rolled
	ignite	ignited
	provide	provided
Irregular	**Present**	**Past simple**
	is / are (be)	was / were
	have	had
	forget	forgot
	come	came
	go	went

Questions
Did it work?
Did he forget?
Did he use water?
What happened?
What caused it?
How did it happen?

yesterday I woke up at 6:45.I washed my face and my teeth after that Iprepaded my breakfast and I ate. At 7:30 got down in the parquing to get the car

Few years ago in my work I took a very heavy roll of paper with the forklift to put it above another one and because of the weight of the roll one of the high pressure oil rode has

2 Complete the sentences with the past simple tense of the verbs in brackets. Use the language box to help you.

1 The problem ________________ (be) a faulty pressure gauge.
2 The detection system ________________ (not work).
3 The alarm ________________ (not go off).
4 I ________________ (hear) you ________________ (have) a problem.
5 Some fuel ________________ (ignite).
6 He ________________ (use) water instead of CO_2.
7 I ________________ (turn on) the lights.
8 I ________________ (call) the duty electrician.
9 The driver ________________ (forget) to put the brakes on.
10 The tanker ________________ (roll) into the wall.

Speaking **3** Now make up your own incident and describe it to a partner. They complete the incident form.

Date: ________________ Time: ________________
Location: ________________________________
Description of incident: ________________________________
Possible cause: ________________________________
Action taken: ________________________________

In the storeroom

Listening **1** 56 Listen to five conversations in the storeroom. Complete the table.

Conversation	What was asked for?
1	a tool box
2	
3	
4	
5	

2 56 Complete the beginning of each conversation. Then listen again to check.

Conversation 1

A: How's it ____going____ ?
B: OK, thanks.
A: I'm ____________ for my tool box.

Conversation 2

B: Hello again. ____________ OK?
A: Erm, this ____________ my tool box.

Conversation 3

B: Hi.
C: Hi. I ____________ a screwdriver.

Conversation 4

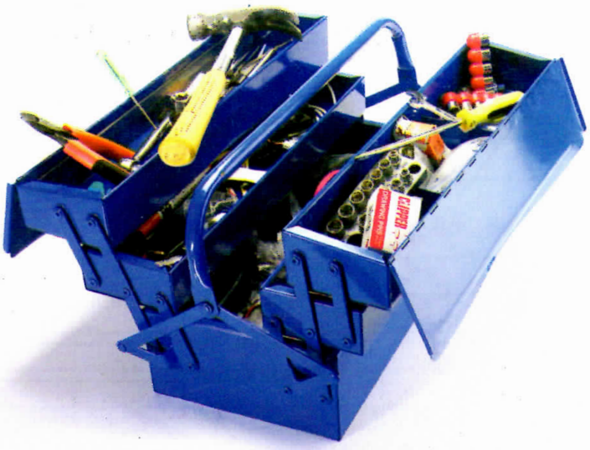
B: Hi, Joe.
D: Hi. How's it going?
B: Not ____________ thanks. You?
D: Not bad. I'm off-shift in an hour. Do you have ____________ ear protection?

Conversation 5

E: Morning. ____________ day.
B: Yeah. What ____________ I do for you?
E: I need ____________ nuts.

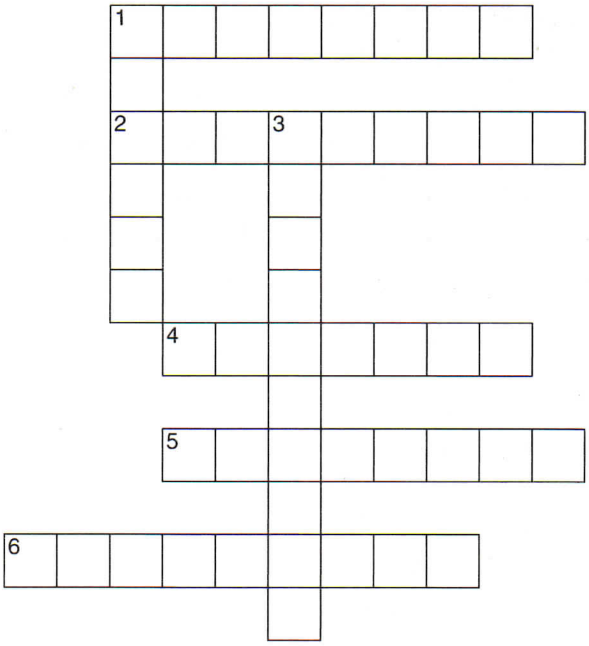
Speaking **3** Turn to the audioscript for track 56 on page 76. Act out the conversations with different partners. Change how you speak to make the conversations more or less friendly.

4 Practise in pairs. Have similar conversations. Take turns being the storekeeper.



Review

Writing 1 Complete the crossword.



Clues

Across
1 Petroleum products that are light, strong and don't rust (8)
2 A plastic you cannot re-melt (9)
4 Fuel for aircraft (3, 4)
5 A place with lots of storage tanks (4, 4)
6 Another word for man-made (9)

Down
1 Another word for gasoline (6)
3 A vehicle used to transport fuel (4, 6)

2 Complete the sentences with the verbs in the box.

supply provides used re-melted ~~is~~

1 Synthetic rubber is ______________ a heat-resistant and corrosion-resistant material.
2 These tanks are ______________ to store asphalt.
3 This facility ______________ storage services for 35 different types of petrochemical.
4 We ______________ automotive and industrial lubricants to customers all over the country.
5 Thermoplastics can be ______________ .

3 Write three sentences about plastics.

4 Use the words in the box to describe an incident.

door smoke fire alarm extinguisher telephone supervisor

5 Complete the report form.

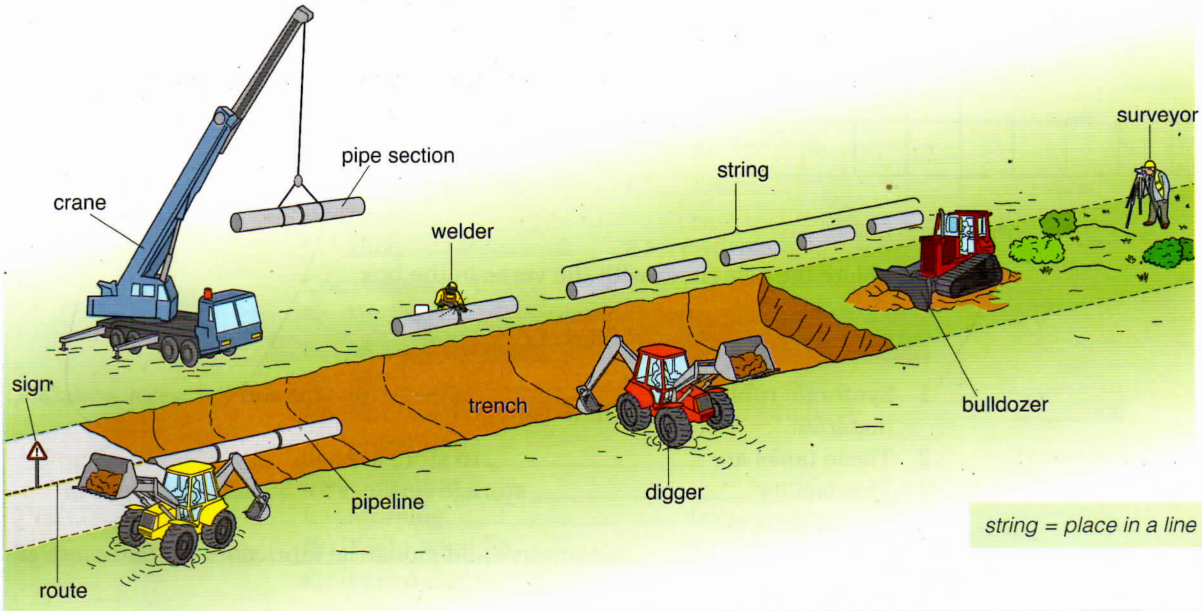
Date: ______________ Time: ______________
Location: ______________
Description of incident: ______________
____
Possible cause: ______________
____
Action taken: ______________
____

8 Transport

- **Talk about pipelines and pipeline jobs**
- **Describe types of oil tanker**
- **Use a vehicle maintenance checklist**
- **Talk about hobbies and interests**

Laying a pipeline

Reading 1 Look at the diagram and read the text.



string = place in a line

Before work begins, two teams of surveyors travel along the route of the pipeline. One team drives along the route and the other team flies over the route by helicopter or small plane. They survey the whole route and inspect it carefully. After the survey, the work begins. First, workers drive bulldozers along the route and clear it. They take out trees, bushes and other obstacles and they level the ground. Next, they string pipes along the route. After this, the diggers dig trenches next to the pipe string. The trenches are about two metres deep. Then welders weld the pipes together into a pipe section. They also bend the pipe section into the shape of the route. Next, cranes lift up the pipe section and place it carefully into the trench. The welders then weld the section to the rest of the pipeline. Then diggers push earth into the trench and cover the pipeline. Workers place signs above the pipeline to warn the public. Finally, engineers pump water at high pressure through the complete pipeline. This tests the strength of the pipeline. If there is a leak, they will find it now.

2 Make lists of the jobs and the vehicles in the text.

Speaking 3 Practise in pairs. Close your book. Describe the process of laying a pipe.

First, surveyors travel along the route of the pipe. Then workers clear the route. After that …

Reporting progress

Listening **1** 57 A company director (A) asks a project manager (B) to tell him about the company's pipeline project. Complete the conversation with the past simple tense of the verbs in brackets. Listen to check.

A: How's the pipeline? Can you bring me up to date, please?
B: Sure. We (1) surveyed ________ (survey) the route last month. The bulldozers (2) ________ (finish) the path yesterday.
A: Good. Is the whole route (3) ________ (do) now?
B: Yes, it is.
A: That's good. What about the pipe sections?
B: We (4) ________ (start) last week. They (5) ________ (complete) the first 2 kilometres on Tuesday.
A: What about welding?
B: We (6) ________ (plan) to start welding last Friday but we (7) ________ (manage) to start on Thursday.
A: That's good. Well done.

Speaking **2** Underline the questions in this conversation. Read the conversation in pairs.

A: How was the project? Did you finish on time?
B: Yes we did. Just!
A: How did you do it? I thought there were problems.
B: There were lots of problems but we had three extra crews.
A: I see. Where was it exactly? Somewhere in the US?
B: Yes, in Alaska. On the coast.
A: How did you get back? By boat?
B: No, by plane.

Language

Past tense questions

We use **questions** to get information. The word order in questions is different from positive and negative sentences and we can use special questions words.	***Did*** *you* ***finish*** *on time?*
	Did *you* ***have*** *any problems?*
	When did *the new valves arrive?*
	How did *you get back?*
	What was *the weather like?*

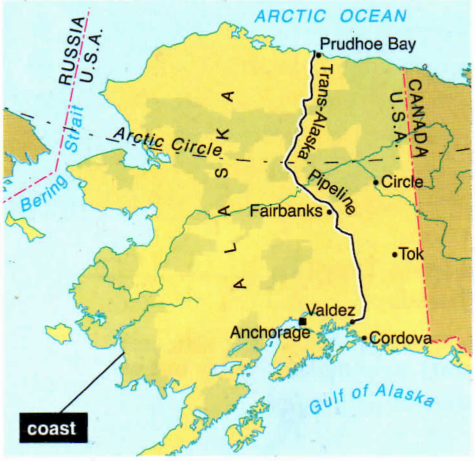
3 58 Complete this conversation. Listen to check.

A: We finished the repairs on the pipeline yesterday.
B: That's great. Ahead of schedule. When (1) did ________ you finish the inspections?
A: On Tuesday.
B: I see. Did you (2) ________ any problems?
A: No, not really. A couple of small leaks. That's all. Nothing serious.
B: When (3) ________ the new valves arrive?
A: Before we left. So no problems there.
B: What (4) ________ the crew members like? Did you have a good supervisor?
A: Yes the team was very good and the supervisor was great.

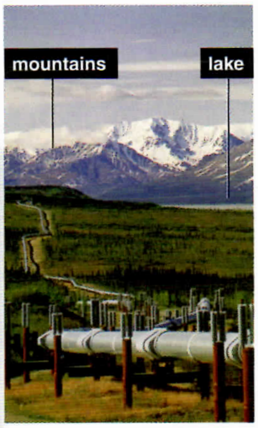
Speaking **4** Practise in pairs. Student A turn to page 68. Student B turn to page 79.

A pipeline route

Reading **1** Look at the photos and the map. Read the text.


ARCTIC OCEAN
Prudhoe Bay
RUSSIA
U.S.A.
Bering Strait
Arctic Circle
ALASKA
Trans-Alaska Pipeline
CANADA
U.S.A.
Circle
Fairbanks
Tok
Valdez
Anchorage
Cordova
Gulf of Alaska
coast

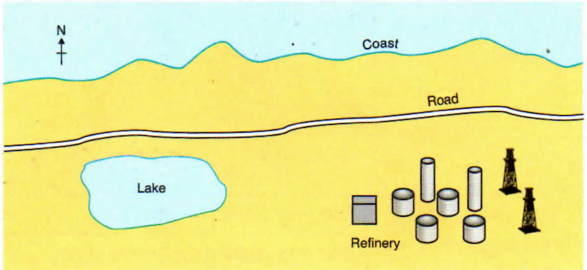
The Trans-Alaska Oil Pipeline is 800 miles long and goes from Prudhoe Bay to Valdez. It has 11 pump stations and took four years to build. Thousands of people worked on the project. It starts at the coast and finishes at the sea. It goes through valleys and crosses rivers.

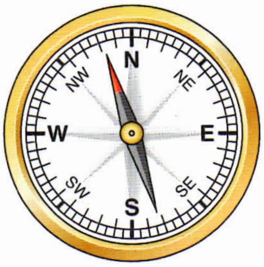

mountains
lake

woods
river

Listening **2** 59 Listen to an engineer talk about a planned pipeline route. How long is the route? What will happen on Monday?

3 59 Listen again. Complete the sketch.


N
Coast
Road
Lake
Refinery

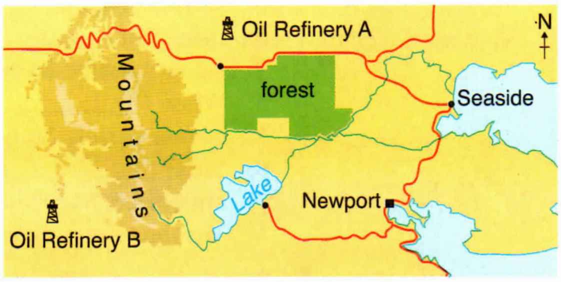

N
NE
E
SE
S
SW
W
NW

Language

***will* for talking about the future**

We use ***will*** + infinitive to talk about the future.	*The pipeline **will go** north-west around the lake.*
	*We'**ll** (**will**) **have** a meeting to discuss the crews.*
	*It **won't** (**will not**) **go** south-west.*
	*What **will happen** on Monday?*

Speaking **4** Practise in pairs. Student A draw a route for a pipeline from oil refinery A to the coast. Student B draw a route for a pipeline from oil refinery B to the coast. Don't show your partner. Take turns to describe your route for your partner to draw.


Oil Refinery A
N
forest
Mountains
Seaside
Lake
Newport
Oil Refinery B

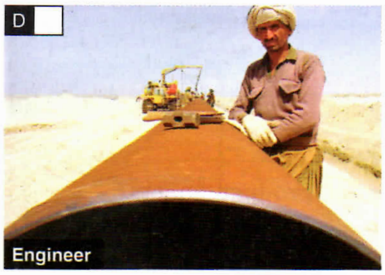
Pipeline jobs

Listening 1 60 Listen to people talking about their jobs on the pipeline and complete the descriptions. Then match the descriptions to the pictures showing the jobs.

A ☐
Crane operator

B 1
Surveyor

C ☐
Earthmoving machine operator



1 My job is to help plan the route________. I have a team of three to help me. We collect information about the land; we measure distances from point A to point B, for example, or we measure how high a point is above ________ level. We use this data to decide where to ________ the trenches and lay the pipe.

2 I drive and operate heavy equipment such as bulldozers and diggers. We ________ the route of obstacles like trees, ________ the ground and dig the trenches.

3 I look after the technical side. For example, I organise tests on the pipe to check that everything is OK and that there are no ________.

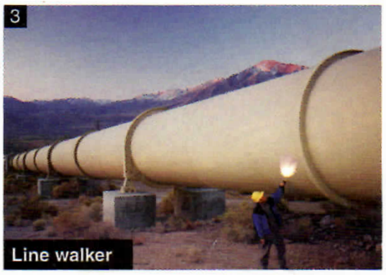
4 My job is to join the ________ of pipe together. When I'm working, I use a special helmet to ________ my eyes.

5 I operate heavy machinery for moving equipment from A to B. For example, I lift sections of the pipe and ________ them in the trench.

6 My job is to transport the equipment and pipes from the ships to the site. Sometimes this means long ________ by road and across country. I also have to look after my ________.

2 61 Listen to three more job descriptions. Make notes.

2
Pipeliner



Speaking 3 Write down the name of a job in the oil industry. Do not show anybody. Then play 20 questions. Your teacher will explain how the game works.

Oil tankers

Language

Large numbers
2,300 = two thousand, three hundred
300,000 = three hundred thousand
423,300 = four hundred and twenty-three thousand, three hundred

1 62 Listen to the information about oil tankers. Match the numbers a–f to the correct words 1–6.

a) 4,000
b) 320,000
c) 1,504
d) 226
e) 564,763
f) 2010

1 metric tonnes
2 width of *Jahre Viking*, in feet
3 oil tankers
4 length of *Jahre Viking*, in feet
5 *Jahre Viking* scrapped
6 deadweight tonnage of *Jahre Viking*

2 62 Listen again. Then answer these questions.

1 What is the difference between crude tankers and product tankers?
2 What does DWT stand for?
3 What does VLCC mean?

Reading **3** Here is some information about other classes of tanker. What do the words *draft*, *beam* and *air draft* mean?

Malaccamax The Strait of Malacca is 25 metres deep. Ships with a greater draft must find a different route.
Suezmax The Suez canal is 18–20 metres deep. There is another problem. The Suez Canal bridge is 68 metres high. The Suezmax class has a maximum DWT of 150,000.
Panamax The width of the locks on the Panama canal limit the beam of the ship to 32 metres. The maximum air draft, from waterline to the highest point of the ship, is 58 metres. The Panamax class is typically between 65,000 and 80,000 DWT.
Seawaymax The St Lawrence Seaway goes from the Great Lakes to the Atlantic Ocean. Seawaymax ships can have a maximum length of 740 feet, a beam of 78 feet and a draft of 26 feet. Other ships on the Great Lakes, called lake freighters, are larger than this and never leave the Great Lakes. They are too large to pass through the locks of the St Lawrence Seaway.

Speaking **4** Work in pairs. Look at the tankers. Together decide which tankers can go through the four locations described above.

A

Length: 340 m; Draft: 18 m; Beam: 44 m; Air draft: 66 m; DWT: 200,000

B

Length: 220 m; Draft: 7 m; Beam: 22 m; Air draft: 15 m; DWT: 50,000

C

Length: 470 m; Draft: 23 m; Beam: 60 m; Air draft: 72 m; DWT: 300,000

Health and safety: Vehicle maintenance

Listening 1 63 Listen to the conversation. Complete the checklist.

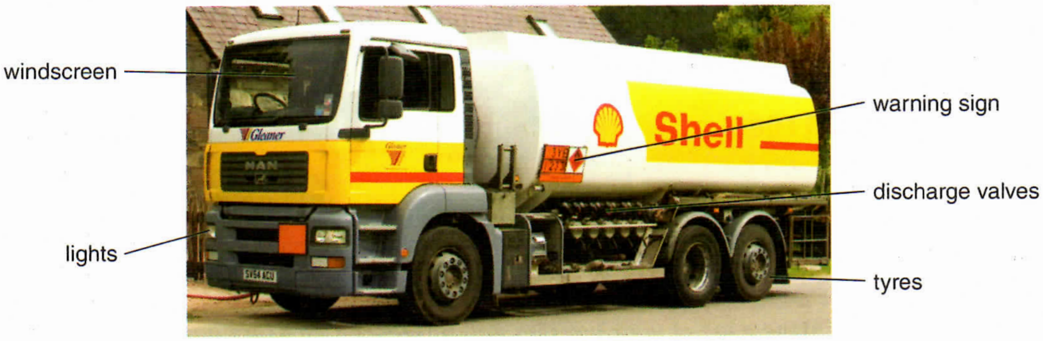
Vehicle maintenance checklist

Name: ____________________

Date: ____________________

Location: ____________________

	Checked	Serviceable	Deficient	Action
Windscreen	✓	✓		
Lights				
Warning signs				
Tyres				
Discharge valves				
Documents				



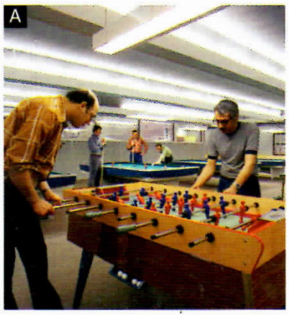
Writing 2 You inspected a road tanker yesterday. Write three sentences about it. Use some of these words to write your report.

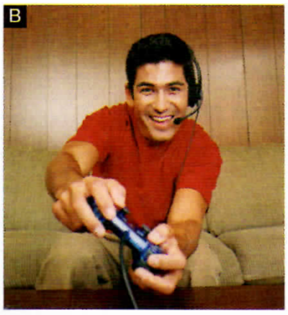
check inspect warning signs tyres tread discharge valves
lights windscreen documents leaks clean missing cracked

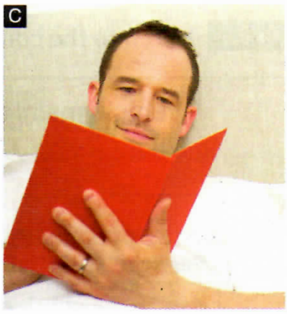
I checked the road tanker yesterday …

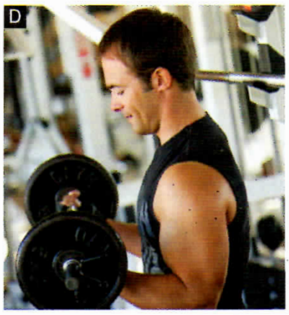
Speaking 3 Work in pairs. Take turns to read your report to your partner. Add a sentence to your report. Then find another partner and repeat.

Off-shift: Life on a supertanker









Listening **1** 64 William Tabone is a crew member on a supertanker. He works hard, especially when the ship is in port but he also has some free time. Listen to him talking about what he does when he is off-shift. Circle the activities you hear.

watch tv

play computer games

sleep

eat

listen to music

work out

read

write letters

play the guitar

go cycling

play games in the recreation room

go jogging

2 64 Listen again. What does William often do? What does he always do? And what does he do sometimes?

3 Make a list of your hobbies and interests. Use a dictionary or ask the teacher if you need help.

Language

How often?

We can use **adverbs of frequency** (e.g. *never, sometimes, often, normally, always*) and other **time expressions** (e.g. *once a week, every Sunday, twice a week, every day*) to say how often we do something. Adverbs of frequency come before the verb. Time expressions come at the beginning or end of the sentence.	*I **always** go to the cinema.* *He **sometimes** watches TV.* *I play football **every day**.* ***Every Sunday** I go to the cinema.*

Speaking **4** Practise in pairs. Ask and answer questions about hobbies and interests. Tell the class what you find out.

What do you do in your free time?
I like swimming. I normally go swimming every day.
He likes swimming. He normally goes swimming every day.

Review

Writing **1** Answer these questions.

1 What do diggers dig?
2 Who do supervisors supervise?
3 What do inspectors inspect?
4 What do drivers drive?
5 What do surveyors survey?
6 What do welders weld?

2 What do these people do? Write a sentence for each job. Use the words in the box to help you.

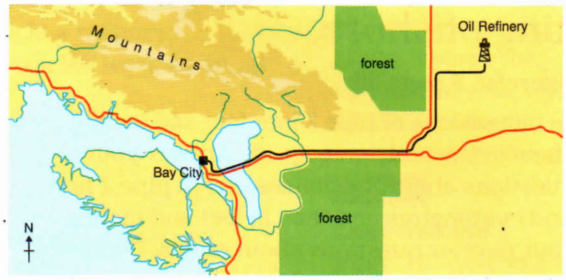
organise tests   operate heavy equipment   sections of pipe
measure distances   plan route   supervise   maintain pipe systems

1 fitter
2 surveyor
3 crane operator
4 engineer
5 welder

3 Write the words in the correct order to make questions.

1 check Did you the windscreen ?
2 you the Did inspect tyres ?
3 Did documents you look at the ?
4 did How you back get ?
5 go last Monday Did you ?
6 were What the members like crew ?

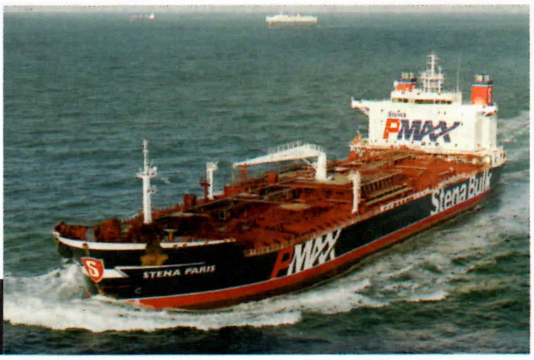
4 Write down the route of the pipeline from the refinery to the coast.



5 Label this picture of a tanker with the words in the box. Then look back at page 64. What class of tanker is it?

air draft   beam   draft

Length: 280 m; Draft: 12 m; Beam: 31 m; Air draft: 56 m; DWT: 75,000



6 Write three to five sentences about your hobbies and interests.

I like football. I usually play football on Friday.

Partner files: Student A

3 Oil fields

Operating equipment

Speaking exercise 4 page 21

Tell your partner to write down these instructions.

1 Turn the handwheel anti-clockwise three turns.
2 Wait five minutes.
3 Check the gauge.
4 Write down the pressure on the gauge in the log book.

Then write down the instructions your partner gives you.

4 Drilling

Health and safety: Helicopters

Speaking exercise 4 page 33

Ask your partner to explain how to board a helicopter.

Off-shift in the canteen

Speaking exercise 4 page 34

You are the cashier in a canteen. Your partner is an oil worker. Use this information and the menu on page 34 to answer his/her questions.

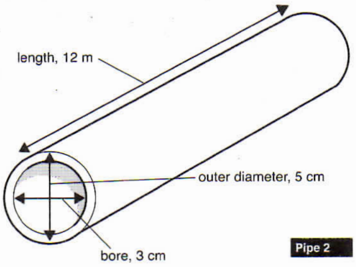
Canteen opening times
06:00–08:00, 12:00–14:00, 18:00–20:00, 24:00–02:00

5 Working offshore

Dimensions

Speaking exercise 3 page 38

Convert the dimensions of pipe 2 into feet and inches and write them in the table on page 38. Answer your partner's questions about the dimensions of pipe 2 first in metres and centimetres and then in feet and inches. Then ask your partner questions about pipe 3. Complete the table then check your partner's calculations.



6 Refining

Health and safety: Emergency procedures

Speaking exercise 5 page 49

Phone your partner and report an emergency. Give your location and the type of emergency. Choose one of these emergencies.

Fire in the separation area **A leak in a piping system**

Then your partner will telephone you about an emergency. Write down his/her name, job, location and the type of emergency. Ask questions if necessary.

8 Transport

Reporting progress

Speaking exercise 4 page 61

You and your partner both finished a pipeline project last week. Here are the details. Answer the questions your partner asks you about your project. Use the details in the box. Then ask your partner questions about their project. Use the information in the box to help you.

Location: Mexico
Length: 34 km
Start date: 6th June
End date: Last week
Weather: Hot and rainy
Problems: None

Audio script

Unit 1 The oil industry

02

1 Hi. My name is Armando Panganiban. I'm from the Philippines. I'm a driver.
2 Hello. My name's Ricardo Cabrera. I'm from Venezuela. I'm a roustabout.
3 I'm Ali bin Khalid, from Saudi Arabia. I'm an engineer. Nice to meet you.
4 Hi, I'm Jennifer Burgess. I'm from Scotland. I'm a radio operator.
5 Hello. I'm Matthew Aondoakaa from Nigeria. I'm a seismic operator.

03

1 Hi. I'm Armando. I drive a road tanker from the refinery to the gas station. The gas station sells the gas.
2 Hi. This is Jennifer Burgess. We're on a supertanker. We transport oil.
3 Hello. My name's Matthew. My job is to search for oil. I work in the countryside.
4 I'm Ali bin Khalid. I work in a refinery.
5 Hi. This is Ricardo Cabrera. We work on an oil rig. We extract oil.

04

The alphabet
A, H, J, K
B, C, D, E, G, P, T, V, Z (American English)
F, L, M, N, S, X, Z (British English)
I, Y
O
Q, U, W
R

05

1 engineer: E-N-G-I-N-double E-R
2 operator: O-P-E-R-A-T-O-R
3 driver: D-R-I-V-E-R
4 roustabout: R-O-U-S-T-A-B-O-U-T
5 refinery: R-E-F-I-N-E-R-Y
6 oil rig: O-I-L, new word, R-I-G
7 tanker: T-A-N-K-E-R

06

1 A: Hello. My name's Cabrera. That's C-A-B-R-E-R-A.
B: Thank you.
2 A: Panganiban.
B: How do you spell that?
A: It's Panganiban. P-A-N-G-A-N-I-B-A-N.
B: Thank you.
3 A: Matthew Aondoakaa.
B: Pardon?
A: Aondoakaa. That's A-O-N-D-O-A-K-double A.
B: Thank you.

07

PPE RPM VDU USA UAE

08

1 We transport the oil.
2 We extract the oil.
3 We search for oil.
4 We refine the oil.
5 I work on a super tanker.
6 We work on an oil rig.
7 We work in the countryside.
8 We work in the control room.
9 I'm the supervisor.
10 I'm the captain.
11 I'm a surveyor.
12 I'm a seismic operator.
13 I'm a driller.
14 I'm a control room operator.

09

Conversation 1

John: Hi. Welcome to the crew. My name's John. I'm the driller, so I'm in charge of this crew.
Ahmed: Thanks. I'm Ahmed.
John: This is Harry. And that's Martin. They're roughnecks.
Ahmed: Excuse me. Roughnecks?
John: Roughnecks. They do all the general jobs.
Ahmed: Oh, OK.

Conversation 2

Sayed: Hello. I'm Sayed. I'm the new control room operator.
Brian: Oh, good to see you, Sayed. I'm Brian. I'm the supervisor. This is Frank. He's an operator, too.
Sayed: Hi, Frank.
Frank: Hello, Sayed.

Conversation 3

Manuel: Hi. I'm looking for Fred. I'm Manuel.

Fred: Hi. I'm Fred. Are you the new radio operator?

Manuel: Yes, that's right.

Fred: Oh, good. Come with me. I'll show you the radio room.

Conversation 4

Antonio: Hello. My name's Antonio.

Chris: Pardon?

Antonio: Antonio.

Chris: Hi, Antonio. I'm Chris. Are you the new surveyor?

Antonio: Yes, that's right. Antonio Rivaldi.

Chris: Good to meet you. I'm a surveyor, too.

10

1. My gloves protect my hands.
2. These ear protectors are great.
3. My boots protect my feet.
4. My helmet protects my head.
5. Trousers protect my legs.
6. My safety glasses protect my eyes.
7. My jacket protects my body.

11

1. These are *my* ear protectors. Yours are over there.
2. My new boots are too big.
3. Where's my jacket?
4. Are these your safety glasses?
5. These trousers are too small. I need new ones.

12

1. Venezuela
2. Mexico
3. USA
4. Saudi Arabia
5. Kuwait
6. Alaska
7. Iraq
8. Russia

13

1. Samotlor is in Russia.
2. Prudhoe Bay? Alaska.
3. East Texas? That's in the USA.
4. Cantarell is in Mexico.
5. Greater Burgan is in Kuwait.
6. Rumaila is in Iraq.
7. The Ghawar oil field is in Saudi Arabia.
8. Bolivar Coastal is in Venezuela.

Unit 2 Looking for oil

14

1. recording truck
2. shock waves
3. heavy plates
4. thumper truck
5. energy source
6. seismic operators

15

1. hydrophones
2. reflected
3. receiver
4. energy
5. explosives
6. different

16

A: Hi, Matthew.

B: Hi.

A: What do you do?

B: I'm a seismic operator.

A: What do seismic operators do?

B: Well, we search for oil.

A: OK.

B: And we work in crews, or teams. In my crew we have three surveyors and five seismic operators.

A: Right.

B: And two shooters.

A: Shooters?

B: That's right. Shooters.

A: What do they do?

B: They handle the explosives.

A: Oh, OK. I understand.

B: First, we survey the land. We look for the best places to go.

A: I see.

B: Then we clear the land. We remove trees and bushes, for example.

A: OK.

B: Then we do our tests. We operate thumper trucks. The heavy plates send shock waves into the rock. We use receivers to record the data and we use computers to analyse the data.

A: What about the shooters?

B: The shooters? Well, sometimes we don't use thumper trucks. Sometimes we use explosives. The shooters drill holes into the ground and prepare the site. Then they detonate the explosives. The explosives send shock waves through the rock. We use receivers to record the data from the shock waves. Then we use computers to analyse the data.

A: Do you like your job?

B: Yeah, I do.

17

a) 40
b) 13
c) 16
d) 22
e) 9

18

a) In our crew we have five people. The driller is in charge.
b) I work on a supertanker. We have a crew of 24.
c) We have four helmets. We need 13 pairs of gloves.
d) A: What is one plus four?
B: Five.
e) A: What is three minus two?
B: One.
f) A: How old are you?
B: I'm 47. And you?
A: I'm 36.
g) A: How tall are you?
B: I'm six foot. And you?
A: I'm five foot nine inches.
h) A: How heavy are you?
B: I'm 79 kilos. And you?
A: I'm 98 kilos.

19

Shooter: OK, your first job. Explosives are dangerous, so be careful.
Assistant: OK.
Shooter: First of all, turn off that phone. No phones with explosives.
Assistant: Sorry.
Shooter: No problem. Now. Bring the box over here.
Assistant: OK.
Shooter: And put the spare cables on the truck. Yellow on the right, red on the left.
Assistant: OK.
Shooter: And keep an eye on the road. Any cars, call me. OK?
Assistant: OK.
Shooter: And don't touch that flask. It's my coffee. Not yours!
Assistant: OK!

20

a) 0780 786 3487
b) 675 489 955
c) 546 389 2001

21

a) 030 3562 8788
b) 0071 253 528 998
c) 0049 756 463 339
d) 030 455 347 328
e) 0786 747 636 461

22

Conversation 1

A: What's your name?
B: Jason Henley.
A: Is Jason your given name?
B: Yes, Henley is my family name.
A: OK. Where do you live?
B: My address is 27 Port Drive, Aberdeen.
A: Did you say 27?
B: Yes, that's right.
A: And how old are you, please?
B: I'm 28.
A: 28? OK. Good. What's your job?
B: I'm a driller on an oil rig.
A: Thank you.

Conversation 2

A: What's your name, please?
B: John Karuett.
A: Can you spell that, please?
B: Yes, sure. It's John, J-O-H-N, Karuett, K-A-R-U-E-double T.
A: Thank you. And your address?
B: 45 Julienne Street.
A: OK. Postcode?
B: 24351.
A: Age?
B: 56.
A: Height?
B: Six foot one.
A: Weight?
B: 93 kilos.
A: OK. And what do you do?
B: I'm a shooter?
A: Pardon?
B: A shooter. I work with explosives.
A: OK. Thank you.

Unit 3 Oil fields

23

1 well
2 pipe
3 tank
4 string
5 barrel
6 field
7 drill
8 hole
9 bit
10 collar

24

Supervisor: OK. Listen carefully.
Trainee: Understood.
Supervisor: First, you turn this handwheel.
Trainee: Clockwise?
Supervisor: No, anti-clockwise.
Trainee: OK, anti-clockwise.
Supervisor: Turn it until it's open.
Trainee: OK. Until it's open.
Supervisor: Next, close this valve.
Trainee: OK. Then close the valve.
Supervisor: And then wait a couple of minutes.
Trainee: Wait a couple of minutes.
Supervisor: Then read the gauge and write the pressure in the log book.
Trainee: OK. Got that.
Supervisor: And finally, check the flanges and the valves.
Trainee: For leaks?
Supervisor: Yes, that's right.

25

a) three o'clock
b) three fifteen
c) four thirty
d) five forty
e) six forty-five
f) seven fifty

26

a) three forty
b) four forty
c) four forty-five
d) six fifteen
e) six fifty
f) seven thirty
g) seven thirty-five

27

1 A: What time are you off-shift?
B: Six o'clock.
A: Me too.
2 A: What time do we start?
B: Two o'clock I think.
A: OK.
3 A: What time do you finish?
B: Seven o'clock.
A: OK. See you in the canteen.
B: Seven thirty, OK? I need a shower.
A: Sure. Seven thirty is fine.
4 A: What time do you knock off?
B: Eight fifteen.
A: That's good. Meet you in the canteen.
B: Oh sorry. Eight thirty today.
A: OK.
5 A: What time do you start?
B: Three o'clock. No, four o'clock.
A: Good. Time for a cup of tea, then.

28

A: What time does the flight to Los Angeles leave?
B: At seven thirty-five.
A: What's the flight number?
B: TH3946.
A: What's the gate?
B: A1.
A: Is it on time?
B: Yes, it is.
A: Thank you.

29

1 A: What's this?
B: It's a pressure gauge.
2 A: What's this for?
B: It's for checking the temperature.
3 A: What does this switch do?
B: It starts the engine.
4 A: How do I increase the speed?
B: You turn the dial.
5 A: How do I lower the pressure?
B: You open the valve.
6 A: What's this thing for?
B: That's the power switch. It starts the motor.
7 A: Did you say turn the handle?
B: Yes, that's right.
A: Clockwise or anti-clockwise?
B: Clockwise.
8 A: What do I do next?
B: Press the start button.
A: OK.

30

1 What's this for?
2 Did you say press the button?
3 What's this gauge for?
4 Did you say pull the lever?
5 What does this switch do?
6 Is this a start button?
7 Does this thing start the motor?

31

Conversation 1
A: Where's Cantarell?
B: I think it's in Mexico.
A: Oh yes, thank you.
B: No problem.

Conversation 2
A: Where's Greater Burgan?
B: I'm sure it's in Kuwait.
A: Oh, OK.

Conversation 3
A: I think the pressure's too high.
B: Oh, yes, you're right. Open the valve.
A: OK. Good idea.

Conversation 4
A: I think the temperature's too high.
B: I don't think you're right. 200 degrees is OK.
A: Are you sure?
B: OK, go and ask Jim.
A: OK. Will do.

Conversation 5
A: Where's your hard hat?
B: In my room. Why?
A: Go and get it. You must wear a hard hat in this area.
B: Oh, OK. I didn't know that. Sorry.

Conversation 6
A: Cup of tea?
B: Good idea.
A: Milk and sugar?
B: Yes, please.

Conversation 7
A: Don't touch the flask.
B: Why? Is it yours?
A: No, it's Norman's.
B: Oh, fair enough.

Unit 4 Drilling

32

1 First, attach the drill pipe to the drill bit.
2 Second, put the collar on the drill bit.
3 Third, fix the kelly to the drill pipe.
4 After that, trip the drill string into the well hole.
5 Next, slide the kelly into the turntable.
6 Then, turn on the power.
7 Next, drill the hole.
8 After that, attach another drill pipe to the string. Then, drill again.
9 Then, trip the drill string out of the well hole.
10 Finally, install the casing in the well hole.

33

1 The swivel hangs from a hook.
2 The kelly connects the swivel to the drill pipe.
3 The kelly goes through the turntable.
4 The engines turn the turntable.
5 The turntable rotates.
6 The turntable turns the kelly.
7 The kelly turns the drill pipe.

34

Conversation 1
A: OK. Let's see. First thing is to undo the flange. Pass me the pipe wrench, please.
B: What size?
A: 40 cm should do it.
B: OK.

Conversation 2
A: It's not moving.
B: No problem. Give me the sledgehammer.
A: OK.

Conversation 3
A: Right. Now I need the pliers.
B: Which ones?
A: The needle-nose, please. They're next to the flask.
B: Ah, got them. Here you are.
A: Thanks.

35

Where's the supervisor's office?
1 It's at the end of the corridor.
2 It's down the corridor, on the right.
3 It's along the corridor, third door on the left.
4 It's through the door.
Where's the car park?
5 Go through the gate. The car park is on the left.
6 Drive past the trees. It's on the right.
7 It's next to the derrick.
8 It's opposite the pumpjack.
9 It's between the derrick and the pumpjack.

36

Here are some instructions. First of all, remove any loose items which might blow away. Always approach a helicopter where the pilot can see you. The tail rotor is dangerous. Get in the helicopter only when the pilot signals you to do so. Fasten your seatbelt as soon as you are seated and put on your ear protection. This flight is over water so you must wear a survival suit and a lifejacket.

37

Conversation 1
A: Hi. I'd like some fries, please, and a cola.
B: Here you are. That's one dollar.
A: Thank you.

Conversation 2

A: Hello.
B: Hello. What would you like?
A: Could I have a pizza and a glass of water, please?
B: Here you are. That's seven thirty-five, please.
A: Here's ten.
B: That's two fifty-five change.
A: Thank you.

Conversation 3

A: Hi. I'd like some soup and a beefburger, please. Oh, and a glass of orange juice.
B: Sure. Here you are. Five fifty, please.
A: Thank you. Here's six. Keep the change.
B: Thanks.
A: You're welcome. Have a nice day now.

Unit 5 Working offshore

38

A: What's this?
B: It's a derrick.
A: What does it do?
B: It supports the block.
A: Did you say the block?
B: Yes, that's correct.

39

A: Does the motor turn the turntable?
B: Yes, it does.
A: And the engines? Do the engines provide the power?
B: Yes, they do.
A: Does the pump drive the generator?
B: No, it doesn't. The engines drive the generator.
A: Do the tanks on the left hold water?
B: No, they don't. They hold fuel.

40

1 The engines provide the power.
2 The fuel tanks hold fuel for the engines.
3 The engines drive the generator.
4 The generator provides electrical power for the motor and the pump.
5 The pump sucks mud from the mud pit.
6 The motor turns the turntable.
7 The water tank holds water for the mud pit.
8 The mud pit contains the drilling fluid.
9 The pipe racks support the drill pipes.

41

A: How long is this pipe?
B: It's 30 feet long.
A: Did you say 30 feet?
B: Yes, that's correct.
A: What's that in metres?
B: About 10 metres.
A: OK. What's the diameter?
B: The outside diameter is 6 inches. The wall thickness is half an inch. And, before you ask, an inch is about two and a half centimetres. So that's about 15 centimetres outside diameter and a wall thickness of just over a centimetre.
A: So the bore is about 12.5 centimetres.
B: That's right.
A: OK, thank you.
B: You're welcome.

42

1 One foot is equal to 12 inches.
2 One inch is about two point five centimetres.
3 One metre is about three feet.

43

A: Tell me about the platform. How much oil does it produce?
B: It produces about 21,000 barrels per day.
A: How many tonnes is that per year?
B: Let me see. That's over one million tonnes per year.
A: How many oil workers are there on the platform?
B: I think there are about 120.
A: How much money do the oil workers earn?
B: They earn quite a lot because they have to work away from home.

44

Conversation 1

A: What's the problem?
B: I have this cough.
A: OK, here's some cough medicine. NEXT!

Conversation 2

A: What's the matter?
B: Too much sun. Sunburn.
A: OK, you need sun cream. Here you are. NEXT!

Conversation 3

A: What's up?
B: My head hurts. I have a headache.
A: Headache? OK. Take these pills. One every four hours. NEXT!

Conversation 4

A: What's the problem?
B: My back. I hurt my back.
A: Hmm. OK. Wait in the other room. NEXT!

Conversation 5

A: What's up?
B: I've got something in my eye.
A: Let's see. OK. Here are some eye drops. NEXT!

Conversation 6

A: Hi. What's the matter?
B: I hurt my hand.
A: Hmm, OK. I'll do an X-ray.

45

1 OK, the recreation room. There's a TV, a snooker table, a telephone and some books. There's also a notice board.
2 The mess area? Just tables and chairs and a window to the galley.
3 The galley? It's a kitchen. It's where we cook our food.
4 The fitness room? We have a running machine and some other sports equipment.
5 The washing machines are on all the time. We get very dirty in this job.
6 Everyone has a locker. That's where we keep our PPE.

Unit 6 Refining

46

1 It's two thirty.
A: Good morning.
B: Good afternoon.
A: Erm, afternoon I mean. I'm here to see Dr Schmidt.
B: Name, please?
A: Hans Clements.
B: Could I see your ID card, please?
A: Of course. Here you are.
B: Thank you. That's fine, Mr Clements. Now, let me see. Dr Schmidt. Oh, OK. Building 51. It's near the river.
A: Thank you.
2 It's two thirty-five.
A: Hi.
B: Hi. How can I help you?
A: My name's Abdullah Al-Rakhis. I'm from the fire department. I'm here to check the hazmat area.
B: OK. Do you know where it is?
A: Yes, thanks.
3 It's two forty-five.
A: Hello.
B: Good afternoon.
A: Erm, good afternoon. I'm Sally Digby. I'm new. I need to go to Building 43.
B: Do you have any identification, please?
A: Yes, of course. Here's my passport.
B: Oh, OK. The admin buildings are over there, on the left, Ms Digby.
A: Thank you.
4 It's three o'clock.
A: Hi. Marisa Codreanu and Dennis Poljakovic. We're here to inspect one of the distillation towers.
B: Dr Rogers runs the separation area. One moment, please. I'll call her.
A: Thank you.
5 It's three fifteen.
A: Hello. I have some spare parts for the control room.
B: What's your name, please?
A: Liu Gaoxuan. From GZ Electronics.
B: Liu Gaoxuan? Can you spell that, please?
A: Liu. L-I-U. Gaoxuan. G-A-O-X-U-A-N.
B: Thank you. One moment, please.
6 It's three twenty.
A: Hi. I'm Connie Grieve from the Water and Electricity department. You have a problem with your substation.
B: One moment, please.
A: OK.

47

OK, so this refinery is nearly three kilometres long and about one kilometre wide, so it covers an area of about three square kilometres. We're now in the control room. This is the centre of the refinery. Everything is controlled from here. We have three gates, with a parking area near each gate. We control access at the gates. Electricity is provided by the substation. Water comes from the river. We use a lot of water to make our products.

The refinery is divided into three main areas. The separation area, with the distillation columns, is where we separate the crude oil into different components. The conversion area is where we use heat and pressure to change the components. The treatment area is where we add chemicals to make the final products. The buildings in the treatment area are the labs.

48

Conversation 1
A: What's today?
B: Tuesday.
A: Ah, Thanks.
Conversation 2
A: Is today Thursday?
B: No, it's Friday.
A: Oh, great.

49

January, February, March, April, May, June, July, August, September, October, November, December

50

Right. In an emergency the first thing you do is raise the alarm. Shout 'Fire! Fire! Fire!'. Second, if possible, call the emergency services. Third, switch off all the machines and go to an assembly area. Then, check all your people are present. Finally, report to the senior person. OK. Any questions?

51

1 It's raining.
2 It's windy.
3 It's a storm. Listen to the thunder.

52

1 It's very cold today. It's twenty below and it's snowing.
2 It's freezing. It's zero degrees. There's ice on the roads.
3 It's a nice day. It's 20 degrees. No rain today.
4 It's very hot today. It's 40 degrees. It's very windy.

Unit 7 Storage

depot-deposito
facilities-construcciones

53

1 These tanks are used to store asphalt. The tanks are heated to keep the asphalt at the right temperature.
2 This depot is for storage only. We don't do any processing here. On the left you can see the tanks and the gantries which allow us to pump the products into road tankers. Tanks 1, 2 and 3 are the largest and are for diesel fuels. Tank 4, the smallest, is for kerosene, and tanks 5 and 6 are for fuel oils.
3 We are one of the largest storage facilities in this part of China. This facility provides storage services for 35 different types of petrochemical. Most of the petrochemicals are used as feedstock for other processes.
4 This tank farm was built 20 years ago, so it's one of our oldest facilities. We have 134 tanks now. We supply automotive and industrial lubricants to customers all over the country. We can handle up to 60 tankers an hour.
5 The bullet tanks you can see all store liquefied petroleum gas, or LPG, in this case propane or butane. We have additional capacity in underground tanks which are behind the control room.

54

This is a typical fire extinguisher. The pressure gauge shows the pressure. At the top is a safety pin. To use the extinguisher first pull the safety pin. When you squeeze the handle, dry chemical, carbon dioxide or water goes up the tube and comes out of the nozzle.

55

Incident 1

A: I heard you had an incident. One of the tanks, right?
B: Tank number 3. I think the problem was a faulty pressure gauge. The detection system didn't work and the alarm didn't go off.
A: Oh.
B: We were lucky. John Smith saw the smoke and called the fire team out. And they were fast.
A: Ah, That's good!

Incident 2

A: I heard you had a problem.
B: Yeah. Last night, around three o'clock. In Building 4. Well, two problems really.
A: What happened?
B: Some fuel ignited. Must have been a faulty switch or something. Anyway, the labourer used the wrong extinguisher on the fire. He used water instead of CO_2.
A: But that's crazy. Everyone knows not to put water on burning fuel.
B: Yeah, I know. Anyway, we extinguished the fire.

Incident 3

A: So what caused the incident exactly?
B: There was an electrical problem, I think. In one of the asphalt tanks. I turned on the lights and there was a flash and some smoke.
A: So what did you do?
B: I called the duty electrician. He came straightaway.

Incident 4

A: I saw the broken wall near the main gate. How did it happen?
B: Not sure. We think the driver forgot to put the brakes on. Maybe he was tired. I don't know. But the tanker rolled into the wall.
A: Anyone hurt?
B: No, luckily. Just a broken wall.
A: What time was all this?
B: About six a.m.
A: This morning?
B: No, yesterday. We called Maintenance.

56

Conversation 1

A: How's it going?
B: OK, thanks.
A: I'm here for my tool box. I left it here last week.
B: What's your name?
A: Smith.
B: Oh, yes. Smith. Here you are.
A: Thank you.
B: You're welcome.

Conversation 2

B: Hello again. Everything OK?

A: Erm, this isn't my tool box.

B: Sorry?

A: These aren't my tools. My tools are new. These are old.

B: Are you Jeff Smith? Jeff with a 'J'?

A: No Geoff with a 'G'.

B: Oh, I see. My mistake. One moment, please.

A: Thanks.

B: Here you are.

A: Thanks.

Conversation 3

B: Hi.

C: Hi. I need a screwdriver.

B: No problem. What type?

C: Three-quarter inch, flat blade.

B: Just a sec. Here you are.

C: Thanks.

Conversation 4

B: Hi, Joe.

D: Hi. How's it going?

B: Not bad, thanks. You?

D: Not bad. I'm off-shift in an hour. Do you have any ear protection?

B: Yes sure. What sort? We have ear plugs, ear defenders, ear defenders for a helmet and ear defenders with a radio fitted.

D: Er. Just ear defenders, please.

B: OK. Here you are.

Conversation 5

E: Morning. Nice day.

B: Yeah. What can I do for you?

E: I need some nuts.

B: Nuts we got. What type?

E: Three-quarter inch. Coarse thread, please. And half inch. Coarse, too.

B: How many?

E: Two of each, please.

B: OK, just a sec. OK, half inch, no problem. Looks like we're right out of three-quarter inch. Sorry.

E: Can you order some?

B: No problem. They'll be here tomorrow.

E: Thanks.

Unit 8 Transport

57

A: How's the pipeline? Can you bring me up to date, please?

B: Sure. We surveyed the route last month. The bulldozers finished the path yesterday.

A: Good. Is the whole route done now?

B: Yes, it is.

A: That's good. What about the pipe sections?

B: We started last week. They completed the first 2 kilometres on Tuesday.

A: What about welding?

B: We planned to start welding last Friday but we managed to start on Thursday.

A: That's good. Well done.

58

A: We finished the repairs on the pipeline yesterday.

B: That's great. Ahead of schedule. When did you finish the inspections?

A: On Tuesday.

B: I see. Did you have any problems?

A: No, not really. A couple of small leaks. That's all. Nothing serious.

B: When did the new valves arrive?

A: Before we left. So no problems there.

B: What were the crew members like? Did you have a good supervisor?

A: Yes, the team was very good and the supervisor was great.

59

A: OK. The route is simple. The pipeline will go from the refinery to the coast. It's a distance of about 25 kilometres. OK?

B: From the refinery to the coast?

A: Yeah. The first section will go straight west from the refinery to the lake.

B: Straight west, OK.

A: Section two will go north-west around the lake and cross the road here.

B: North-west to the road?

A: Yeah. It crosses the road and section three will then follow a straight line north to the coast.

B: Straight north, OK.

A: Any questions?

B: No, that's fine.

A: OK, good. We'll have a meeting next week to discuss the schedule and the crews. OK?

B: When next week?

A: On Monday. In my office at ten.

B: I'll be there.

A: Great. OK. Thank you.

B: You're welcome. See you next week.

60

1 My job is to help plan the route. I have a team of three to help me. We collect information about the land; we measure distances from point A to point B, for example, or we measure how high a point is above sea level. We use this data to decide where to dig the trenches and lay the pipe.

2 I drive and operate heavy equipment such as bulldozers and diggers. We clear the route of obstacles like trees, level the ground and dig the trenches.
3 I look after the technical side. For example, I organise tests on the pipe to check that everything is OK and that there are no leaks.
4 My job is to join the sections of pipe together. When I'm working, I use a special helmet to protect my eyes.
5 I operate heavy machinery for moving equipment from A to B. For example, I lift sections of the pipe and put them in the trench.
6 My job is to transport the equipment and pipes from the ships to the site. Sometimes this means long distances by road and across country. I also have to look after my truck.

61

1 I'm a fitter. My main job is to prepare the pipe sections for welding. I also install and maintain pipe systems such as gauges and other measuring instruments.
2 My job's a pipeliner. I do lots of different tasks. Sometimes I help the surveyors or the heavy machine operators or the fitters. Sometimes I have to help clear the route of obstacles or fill in the trenches. And sometimes I clean storage tanks. It's heavy work, normally.
3 I'm a line walker. My job starts when the pipeline is finished. I use a car or I go on foot and I check the pipeline for leaks or other problems. Sometimes I can fix the problem myself and sometimes I report the problem to the engineers.

62

Crude tankers carry crude oil from drill sites to refineries. Product tankers carry petroleum products from the refineries to the market. There are over 4,000 oil tankers of 1,000 DWT or greater worldwide. DWT stands for dead-weight tonnage. Tankers come in different sizes and classes. The largest are called ultra large crude carriers, or ULCCs for short. They can carry DWTs of 320,000 metric tonnes or more. Very large crude carriers, or VLCCs, carry between 200,000 and 320,000 DWT. The longest tanker in the world, *Jahre Viking*, also known as *Seawise Giant*, *Happy Giant* and *Knock Nevis*, was 1,504 feet long and 226 feet wide and could carry 564,763 DWT. She was scrapped in 2010.

63

A: OK, so let's see. Did you check the windscreen? Check it's clean and look for any damage.
B: Yes, looks OK.
A: OK, good. What about the lights? All clean and working?
B: Yes, OK.
A: Good. Warning signs?
B: Side warning signs OK. Rear warning sign missing.
A: Missing?
B: Yes. Looks like someone took it.
A: OK. We need to get a new one then.
B: Yes.
A: OK. Tyres? Check for damage. Check the tread and the pressure.
B: All OK.
A: Discharge valves? Any leaks?
B: No leaks. But number 3 is cracked. The others are all OK.
A: Hmm. OK. Documents?
B: All OK.
A: Good, so let's get go and get a cup of coffee.

64

A: What do you do when you're off-shift?
B: In my free time I do lots of things. I often watch TV, I always sleep, I sometimes read, I listen to music. I also like playing the guitar.
A: What sort of music do you like?
B: I like most sorts of music.
A: What about exercise?
B: The ship has a fitness room, so I work out most days.
A: I see.
B: I also like cycling and jogging.
A: Cycling? In the fitness room?
B: No, on a real bicycle. The ship is over 300 metres long, so I can go cycling and jogging every day, except when the weather is bad, of course.

Partner files: Student B

3 Oil fields

Operating equipment

Speaking exercise 4 page 21

Write down the instructions your partner gives you.

Then tell your partner to write down these instructions.

1 Check the valve for leaks.
2 Open the valve.
3 Turn the handwheel clockwise three turns.
4 Telephone the supervisor and tell him the pressure.

4 Drilling

Health and safety: Helicopters

Speaking exercise 4 page 33

Ask your partner to draw a helicopter and name the parts.

Off-shift in the canteen

Speaking exercise 4 page 34

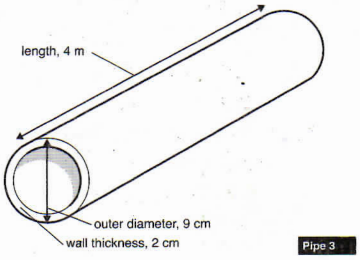
You are an oil worker in a canteen. Your partner is the cashier. Ask what time the canteen opens and closes. Use the menu on page 34 to order a meal. Ask how much it costs.

5 Working offshore

Dimensions

Speaking exercise 3 page 38

Convert the dimensions of pipe 3 into feet and inches and write them in the table on page 38. Ask your partner questions about pipe 2. Complete the table then check your partner's calculations. Then answer your partner's questions about the dimensions of pipe 3 first in metres and centimetres and then in feet and inches.



Pipe 3

6 Refining

Health and safety: Emergency procedures

Speaking exercise 5 page 49

Your partner will telephone you about an emergency. Write down his/her name, job, location and the type of emergency. Ask questions if necessary. Then phone your partner and report an emergency. Give your location and the type of emergency. Choose one of these emergencies.

Smoke in a lab **A problem at the substation**

8 Transport

Reporting progress

Speaking exercise 4 page 61

You and your partner both finished a pipeline project last week. Here are the details. Ask your partner questions about their project. Use the information in the box to help you. Then answer the questions your partner asks you. Use the details in the box.

Location:	Alaska
Length:	102 km
Start date:	30th September
End date:	Last week
Weather:	Cold and wet
Problems:	Only the weather

Pearson Education Limited
Edinburgh Gate
Harlow
Essex CM20 2JE
England

and Associated Companies throughout the world.

www.pearsonlongman.com

© Pearson Education Limited 2011

The right of Evan Frendo and David Bonamy to be identified as authors of this Work has been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of the Publishers.

First published 2011

ISBN: 978-1-4082-6997-8

Set in ITC Cheltenham Book

Printed and bound by Graficas Estella, Spain

Design: Pearson Education

Acknowledgements

The publishers and authors would like to thank the following people and institutions for their feedback and comments during the development of the material:

Pamela Heath, Canada; Daniel Mangrum, UAE; Schona Playford, Qatar; Paul Rogers, Saudi Arabia

The publisher would like to thank the following for their kind permission to reproduce their photographs:

(Key: b-bottom; c-centre; l-left; r-right; t-top)

p4: Alamy Images: Danny Hooks (B); artpartner-images.com (D). **Fotolia.com:** time2lime (A). **Photolibrary.com:** Red Chopsticks (E). **STILL Pictures The Whole Earth Photo Library:** Julio Etchart (C). **p7: Alamy Images:** Archie Miles (B). **Art Directors and TRIP Photo Library:** Dimitri Mossienko (A). **Photolibrary.com:** Larry Lee Photography (C). **Pictures courtesy of BP plc:** (D). **p9: Alamy Images:** Artostock.com (trousers); numb (jacket). **DK Images:** Stephen Oliver (helmet). **iStockphoto:** (glasses). **Thinkstock. p12: Alamy Images:** artpartner-images.com. **p14: Photolibrary.com:** Corbis. **p16: iStockphoto:** (bottle). **Thinkstock:** iStockphoto (mobile phone, pen); Jeffrey Hamilton (keys); Hemera (cupboard); Jupiterimages / Creatas (window). **p21: Alamy Images:** Stock Connection Distribution. **p23: Alamy Images:** Nuno André. **p24: Alamy Images:** artpartner-images.com (br). **Getty Images:** Steven Puetzer (bc). **iStockphoto:** (gloves). **Photolibrary.com:** Javier Larrea / age fotostock (t/gauge). **Science Photo Library Ltd:** Chris Sattlberger (bl). **Thinkstock:** iStockphoto (helmet); Hemera (valve). **p30: iStockphoto:** (br). **STILL Pictures The Whole Earth Photo Library:** Design Pics (bl). **Thinkstock:** (bc). **p31: Alamy Images:** Eye-Stock (screwdriver); SCPhotos (paint); RJH_RF (hole). **iStockphoto** (nail, screw, wire). **Pearson Education Ltd:** Gareth Boden (hammer). **Thinkstock:** Brand X Pictures (paint brush, wrench); Comstock (drill); Hemera (nut). **p33: STILL Pictures The Whole Earth Photo Library:** Graham Eaton. **p37: Getty Images:** Harald Sund. **p38: Photolibrary.com:** A Farnsworth / age fotostock. **p41: Pictures courtesy of BP plc. p44: Alamy Images:** picturesbyrob (l); Gabe Palmer (c); Dimitri Mossienko / Art Directors & TRIP (r). **p45: Photolibrary.com:** Corbis. **p46: Photolibrary.com. p47: Thinkstock:** iStockphoto. **p49: Corbis:** STRINGER / IRAQ / Reuters. **p50: Rex Features:** KPA / Zuma. **p52: Alamy Images:** Alvis Upitis (C). **Art Directors and TRIP Photo Library:** Helene Rogers (D). **Getty Images:** Robyn Beck / AFP (A). **Photolibrary.com:** Red Chopsticks (B); (E). **p53: Alamy Images:** AfriPics.com (C). **iStockphoto:** (A, B). **Photolibrary.com:** Nick Daly (D). **Thinkstock:** Hemera (E). **p56: Getty Images:** Code Red. **p58: Alamy Images:** Oliver Leedham. **p59: Alamy Images:** FirePhoto. **p62: Photolibrary.com:** Ken Graham / age fotostock (t); Steve Kaufman / Peter Arnold Images (b). **p63: Alamy Images:** Kevpix (1, C); Accent Alaska.com (2); Harry Stewart (D). **Getty Images:** Oleg Nikishin (A). **Photolibrary.com:** Peter & Georgina Bowater (E); Alan Kearney / age fotostock (3). **Rex Features:** Gary Leighty (B); OJO Images (F). **p64: www.fotoflite.com. p65: Alamy Images:** Mar Photographics. **p66: Alamy Images:** Beyond Fotomedia GmbH (C). **Art Directors and TRIP Photo Library:** Spencer Grant (A). **Getty Images:** Vincent J. Ricardel (B). **Rex Features:** Burger / Phanie (D). **p67: www.fotoflite.com**

Cover images: *Front:* **Fotolia.com:** Carabay (c); **iStockphoto:** Christian Lagereek Background, George Clerk (r), Ricardo Azoury (l)

All other images © Pearson Education

Every effort has been made to trace the copyright holders and we apologise in advance for any unintentional omissions. We would be pleased to insert the appropriate acknowledgement in any subsequent edition of this publication.

English for the Oil industry is part of the *Pearson Longman Vocational English* series. It is designed for students in vocational education and for company employees in training at work. Written by industry practitioners, it combines a strong grammar syllabus with the specialist vocabulary and skills that learners need to succeed in their chosen field.

Level 1 ***English for the Oil Industry*** is designed for students with a basic knowledge of general English who now require an elementary (CEF level A1–A2) English course in this specific field. It includes:

- topics that reflect the latest developments in the oil industry, making them immediately relevant to students' needs
- clearly defined language and function objectives which are backed up by comprehensive on-the-page language boxes
- essential online support for teachers including teacher's notes, fully editable tests and multi-lingual glossaries
- student CD-ROM with interactive glossaries in both British and American English and full course book audio in MP3 format

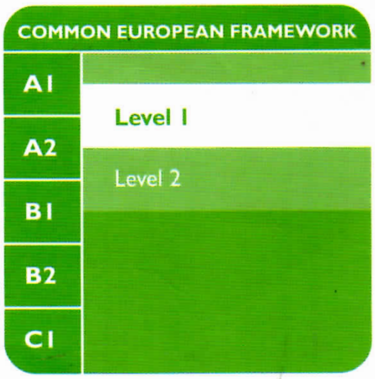
Other titles in the series include:

English for Banking & Finance

English for Information Technology

English for Nursing

www.pearsonlongman.com/vocationalenglish



PEARSON
Longman

www.pearsonlongman.com

ISBN 978-1-4082-6997-8